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Sears-Roebuck and W. T. Grant Co., Stores, La Crosse, Wisconsin. Pozzolith Architectural Concrete. Building Owner—Dr. Frank Hoeschler. Archt.—Boyum, Schubert & Sorenson, La Crosse, Wis. Contr.—Theo. J. Molzahn & Sons, Inc., La Crosse, Wis.

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(PENCIL POINTS)

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February, 1948

Mr. David Searcy Barrow
605 Central Avenue
Wilmette, Illinois

Dear Mr. Barrow:

We have your letter asking for details of the 1947 PROGRESSIVE ARCHITECTURE Annual Awards. Here they are:

The Awards are intended to recognize and cite the most successful efforts in the direction of sincere progress in architectural design in the United States. There are two Awards — one for a residence; one for a building not a residence. Buildings entered must have been constructed during the calendar year 1947. Entries close March 1st.

You can submit your own work, or you can nominate a job done by someone else. For the jury to give your entry proper consideration, you must send us at least three photographs, a plot plan, floor plans, and a brief description of the building, its construction, and its purpose. We are sending to you and all architects an entry blank to accompany submissions. Anyone who doesn't receive one, or wants more, can get them by writing to us.

The jury this year is made up of the following distinguished men: Henry Churchill, architect and city planner; Joseph Hudnut, dean of Harvard's Graduate School of Design; Douglas W. Orr, architect, president of the A.I.A.; Antonin Raymond, architect; Paul Weidlinger, engineer. Thomas H. Creighton will serve as professional adviser.

We look forward to having your work to submit to the jury for their consideration.

Sincerely,

The Editors

P/A:czm

The Editors

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Walter Ahlschlager—*Architect*
Henger Construction Co.—*Contractor*

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PRO . . .

Dear Editor: Yes sir, the profession certainly needs real research data, test results, and technical information.

It is amazing how little of it is available in the day-to-day exercise of our wise and noble profession. I am talking with some feeling about that, as I have been during the last two or three years working on both a steel prefab and a wall panel. I can tell you that in my opinion one of the great handicaps to progress is this lack of really factual, readily available information on what materials or combinations of materials can do. That to me is infinitely more important than trying to find out if the minimum house is 767 or 830 sq. ft.

WILLIAM LESCAZE
New York, N. Y.

Dear Editor: In your December "Observations" you allude to what appear to be "pseudo-scientific" experiments taking place at the University of Illinois. I first thought of it as one of those many things on which it is not worth wasting one's ammunition. But the same mail brought a book just released by the Commonwealth Fund, *Medical Research in America* (a whole book, mind you!). I began to search for an answer why medicine, which is also regarded as an art, has research whereas architecture has practically none. (Tell a reputable surgeon that his work is not art and he'll knock your block off!)

In the medical profession much research takes place in hospitals, or in cooperation with the pharmaceutical industry, but always under a strict discipline of the medical profession. By and large, architects would not know research if they met it in the street because those of them who have any intellectual pretensions regard architecture primarily as ART. Not being interested in technical matters, we have no problems to toss to the producers. (Sure, we too have A. I. A. Committees, etc., but you can't kid me.) The producers not being stimulated by the profession produce irresponsible "pseudo-science." When the architect becomes a technologist (he may even obtain a social conscience), he will demand and obtain the blessings of scientific research.

ISADORE ROSENFIELD
New York, N. Y.

In the December "Observations," P/A Editor Thomas H. Creighton commented on a press release from the University of Illinois which seemed to speak of "research" of a type lower than the excellent work that institution has been known for. Creighton ended his observation by saying, "Oh dear, I suppose I've stepped on a lot of toes again." He had.

Dear Editor: I have read myself the press release of the University of Illinois to which you have referred in your column. What you have written about it expresses in a more restrained language what I and some other friends of mine, interested and engaged in housing and building research, felt upon reading this news item. The building industry is still full of traditional superstitions and needs nothing less than reflections about the beauty of aluminum shingles. I wonder if the sponsors of this "research project" realize that, at the present time, a great number of all-aluminum houses are being produced, aluminum sidings, roofing sheets, and structural members used in buildings, without the benefit of anything resembling an aluminum building code, stand-

(Continued on page 10)

CON . . .

Dear Editor: Your recent "Observation" regarding the University of Illinois Housing Research Program seems to me to be an excellent example of "pseudo-editing."

The position of the University of Illinois in housing research is widely known and respected by men in science and industry, many of whom have visited us here and are contributing their cooperation for the progress of our program.

I want to extend a standing invitation to you to visit us in Urbana to see for yourself what we are doing and to discuss current thinking for the improvement of housing.

WILLIAM H. SCHEICK
Coordinator, Small Homes Council
University of Illinois
Urbana, Ill.

Dear Editor: Professor Scheick's letter to you of December 6th was far more restrained than one I might have written if I were in his position. Because I received a copy of his letter, I read your "confession of ignorance" and noted your question, "Am I wrong when I think this sounds like nonsense?". My answer to that is YES!

But more to the point, I would suggest you not only accept Bill Scheick's invitation to do a little personal research on research activities, but that you also visit Purdue where, for more than 10 years, the Housing Research Campus has been testing housing advances by actually living in them. It isn't to be expected that one house is a test—but when a scientifically-minded family is the occupant, and instruments record

(Continued on page 12)

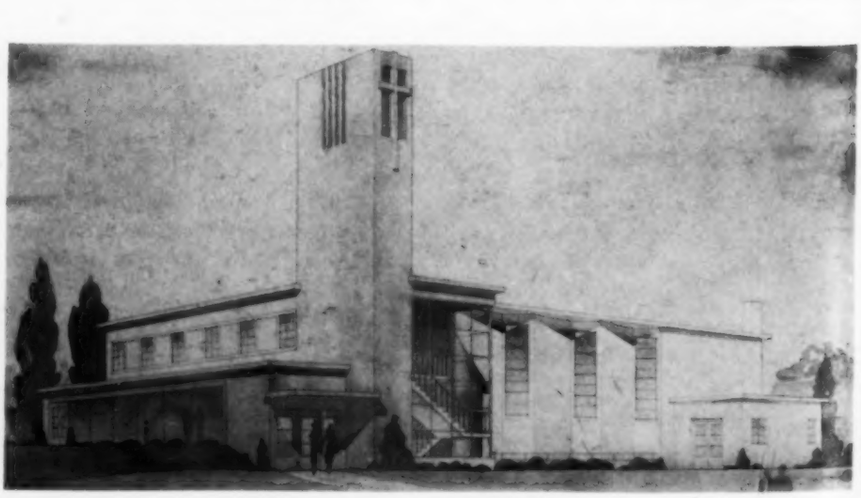
CONTEMPORARY COINCIDENCE

Dear Editor: **Ralph C. Flewelling's Episcopal Church (August 1947 *Progressive Architecture*) gave me quite a shock. Generally speaking, it is a fine piece of contemporary design.**

The reason for the shock is that my design for a Tabernacle for The Christian and Missionary Alliance, Toronto, with its serrated side walls, had not yet been published. Now all the local boys are going to think I lifted that serrated nave side wall idea from Flewelling: they'll never believe I dreamed it up myself.

Flewelling's design is better than mine—at least it may be said that it looks like a church. When I am told that mine does not, I just say, "Well, but it *is* a church, therefore it must look like one."

FRANCIS G. REED
Toronto, Canada



Tabernacle for The Christian and Missionary Alliance, Toronto, Canada—Francis G. Reed, architect.

BERGEN GOES TO MANHASSET, LONG ISLAND

for

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and Amos Parrish & Co.

THERE were many challenging problems involved in the project at Manhasset. Not one, however, had to be compromised with. Neither the architects nor the store executives were asked to change their plans "because it just can't be done that way." Bergen craftsmanship combined with Bergen know-how have again translated the designers' vision into an enduring reality.

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(Continued from page 8)

ards, or specifications. This is just one urgent example of the need for the "real research data, test results, and technical information" to which you referred in your "Observations."

The especially surprising and depressing note in this story is that this alchemy is being carried on in the University of Illinois. The Engineering Experimental Station of this very same University has in the past published (without any press releases) some of the most outstanding research bulletins on various topics connected with structural engineering and stress analysis. Through the reading of these underpublicized bulletins I have grown accustomed in the past to a high level of scientific thinking and honest research work from this source. I would be extremely disappointed if the University should publish anything resembling, as you have so aptly expressed it, cigarette advertising.

PAUL WEIDLINGER
United Industrial Associates, Inc.
Washington, D. C.

Dear Editor: I wish to commend you for your remarks on page 122 of the December issue of P/A anent "housing research." Some very sad travesties of real endeavor are being perpetrated in that guise. The reason appears to be that the genuinely inventive spirits have been starved out of this field, leaving "housing research" to become the monopoly of those whose real interest is the status quo.

Consider the predicament of any college wanting to create the impression that it has some slight interest in the housing problem. Where is its money for research to come from? With profits what they are currently reported, it is natural to "approach" some industrialist in the housing field for the necessary funds. But this industrialist may be having a struggle to keep his own research technicians from "digging too deeply" or from "browsing too far afield" to shell out money for professors to dig down into fundamentals. If such an industrialist can be coddled for the sake of his alma mater to shell out, be sure it will be to encourage the professors to browse far on the outer fringes of real research. Thereafter, in order to make their labors seem significant to their alumni, the professors have to exaggerate the significance of the work. Someday I hope some University will take the bull by the horns and initiate a program of genuine research, let the chips fall where they will. The first requisite is a *disinterested* angel.

CORWIN WILLSON
Director of Research
Corwill Corp.
Flint, Mich.

Dear Editor: Your item on "pseudo" research on the December "Observations" page made an important point in drawing attention to the increasing commercialization of terms such as "research" and "planning." As a selling point for a wide range of professional and not-so-professional activities, these concepts are achieving a dubious popularity reminiscent of the added vitamin in every what-not from ice cream to face cream.

It is a very natural corollary to professional and public acceptance, but unless we insist on some sort of standards in the profession in using these terms, we will end up by discrediting a valuable advance in our still largely irrational and backward field.

Two things especially impede an efficient use of research data. The first is this vulgarization that has little in common with a scientific approach, and in fact becomes a cover-up for doing things in the same old way. As a result, clients

(Continued on page 12)

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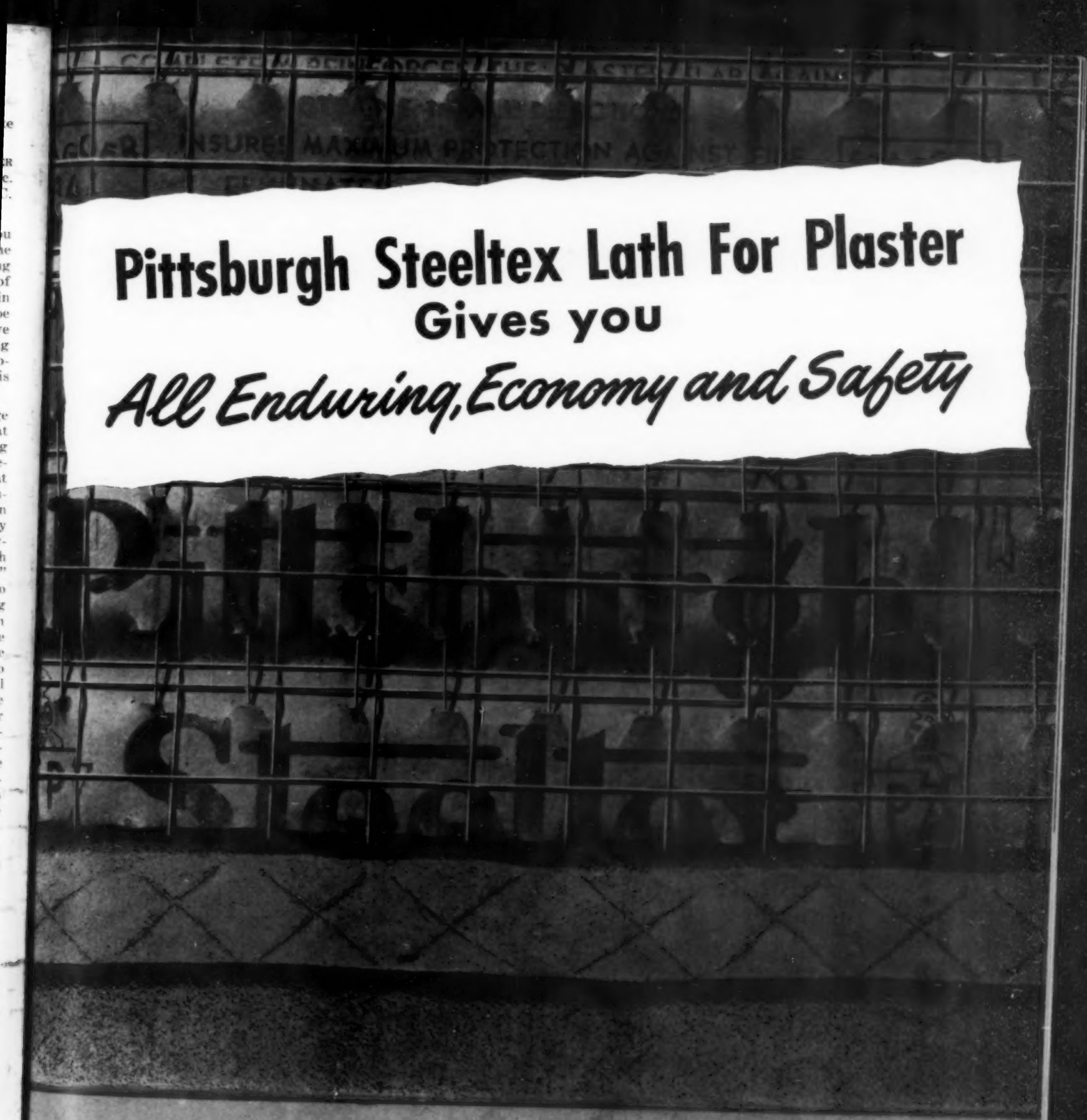

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Views

(Continued from page 10)

and the public at large underestimate the crucial role of research in improving environment, and therefore do not appreciate the costs involved. Secondly, while we are flooded with a wealth of data, much of it of very sound value in itself, the lack of coordination and of facilities for making it available in usable form vitiates its utility to the practitioner and the public. In its final presentation there is too often a slanting which creates new misconceptions, even though the original work may have been valid.

It is essential that some way be found to organize this asset and put it to use objectively in the interest of better building and planning. And as a beginning, let's stop kidding ourselves.

HERMANN H. FIELD
Director of Building Plans
Cleveland College
Cleveland, Ohio

IT'S A GOOD IDEA TO USE D-O-U-B-L-E W-I-D-T-H

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CON . . . . .

(Continued from page 8)

the physical performance of the structure and its equipment, you can indeed learn a great deal.

Furthermore, you should recognize that this is only one type or phase of research—a test application of developments made in many fields brought together as they are intended to be used in an actual dwelling. It is the culmination of basic work, exceedingly valuable in keeping the more fundamental studies in the right direction.

TYLER S. ROGERS
Owens-Corning Fiberglas Corp.
Toledo, Ohio

Dear Editor: Your "Observations" in the December issue of PROGRESSIVE ARCHITECTURE appear to be somewhat misleading in the case of the research program at the University of Illinois. As Chairman of the Subcommittee on Construction Methods of The Producers' Council, I have been fortunate in working with Messrs. Scheick and Lendrum on the Industry-Engineered House study which they are conducting at the University. Therefore, I have had some opportunity to familiarize myself with some of the other housing projects which are in progress there.

D. T. COLTON
Research Center
Johns-Manville Corp.
Manville, N. J.

Dear Editor: I have copies of the letters addressed to you under dates of December 6th and December 15th by Professor William H. Scheick and Mr. D. T. Colton, respectively, regarding your "Observations" in the December issue of PROGRESSIVE ARCHITECTURE on the University of Illinois Housing Research Program and I concur with both of these gentlemen that a better understanding on your part, than you appear to have, of the entire program would be in the interest of all concerned.

HARRY C. PLUMMER
Director, Engineering & Research
Structural Clay Products Institute
Washington, D. C.

●

WHITE AND NEGRO

Dear Editor: In the Visitors' Building of the Fontana TVA Dam, toilet facilities are provided, as labelled in your drawing, for WHITE and COLORED. In the lead Editorial and descriptive material of the December issue you describe the dam as a *Democratic* monument and *Progressive* architecture. You failed to qualify that these words

(Continued on page 14)

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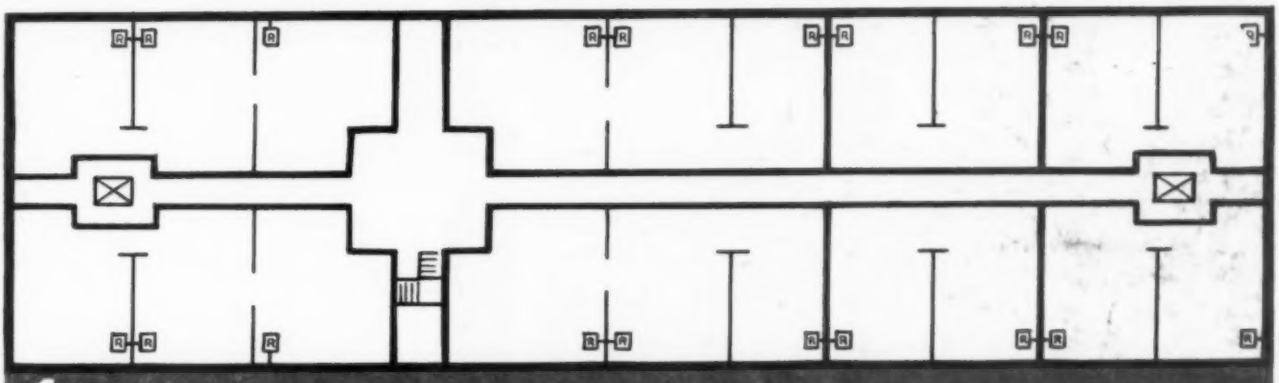

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Views

(Continued from page 12)

apply to only some of the buildings, because certainly no building can be considered to be part of a *Monument* to *Democracy* and *Progress* and still respect the practice of race discrimination.

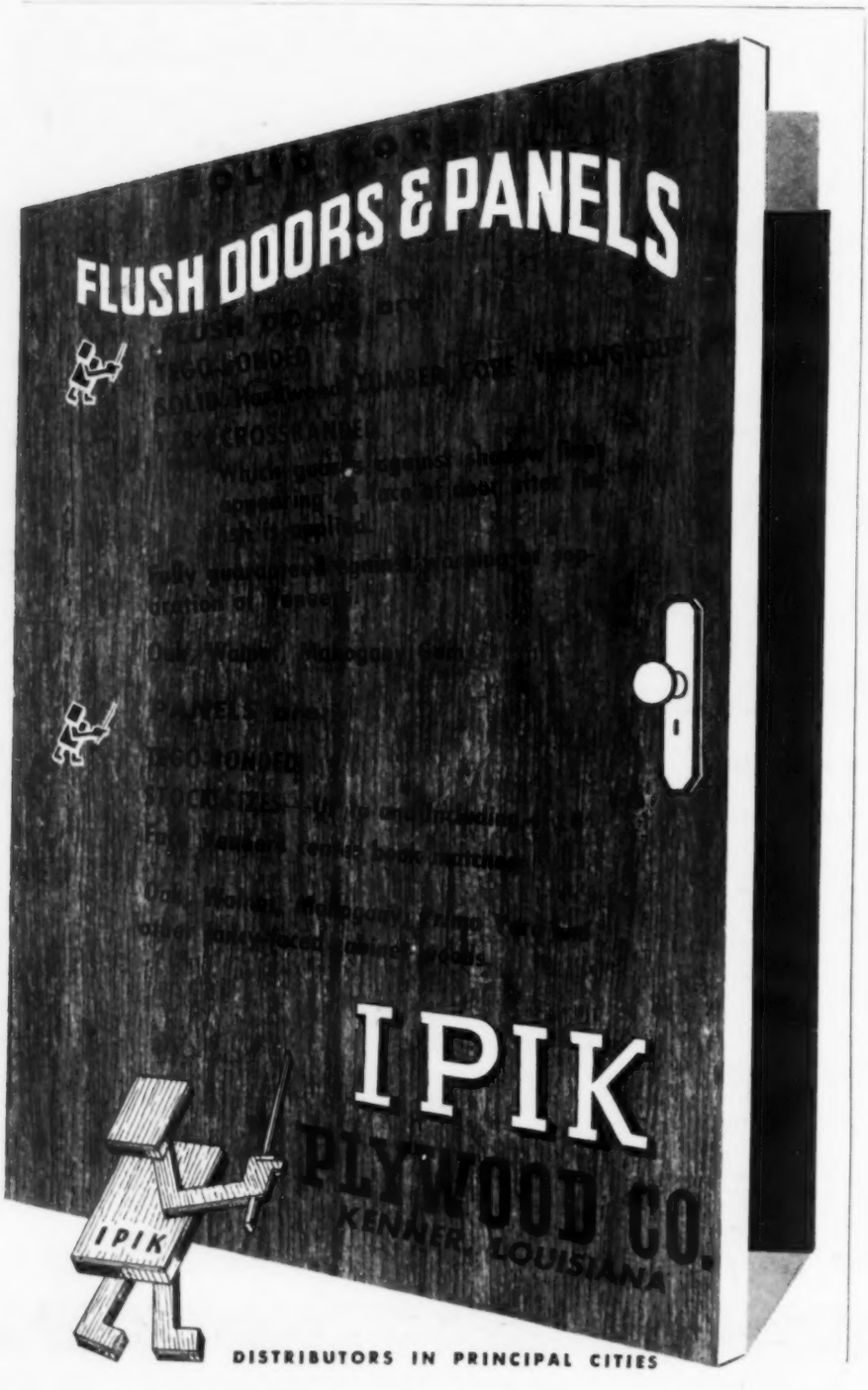
I know that the policy of your magazine is opposed to such biased discrimination.

DAVID L. SOLTKER
Chicago, Ill.

THE MAIN POINTS

Dear Editor: Your presentation of the Fontana Dam project in the current issue of P/A is tops. That is quite an involved piece of work and the featuring of the main points without losing oneself in the numerous small items must have been a very difficult editorial task. The spread was enjoyed by all of us.

GILL & BIANCULLI
Chattanooga, Tenn.



THE AMES EXPERIMENTS

WARM RESPONSE

Dear Editor: I have just read the "Progress Report," "Form Still Follows Function," in PROGRESSIVE ARCHITECTURE for December.

It is by far the most concise and communicable statement of the significance of our work to an applied field that has been made to date, and there have been many attempts. It is a much more significant statement than we ourselves are capable of. Our experience in the field is too meager to provide a background necessary for wisdom.

ADELBERT AMES, JR.
The Hanover Institute
Hanover, N. H.

LEFT HIM COLD

Dear Editor: Your December "Progress Report," "Form Still Follows Function," was stimulating, but I wish I could share your enthusiasm. I tried very hard to feel the challenge of a new approach to esthetics in the work of the Dartmouth Eye Institute but was left cold. To save my life, I could not see how the experiments in vision by Professor Ames led you to conclude that "there could not be a clearer, more rational call for architectural design which is esthetically, emotionally, spiritually appropriate to our times and our people."

Without being acquainted with Professor Ames' experiments beyond your remarks, it seems to me that any esthetic theory based solely on visual experience is bound to be limited. Physiology is not esthetics. All the eye experiments in the world could never, by themselves, suffice as a springboard for a satisfactory theory of art.

Contrary to your feeling that Ames' ideas lead to action, I am left with the feeling—and I know I may be very wrong—that they indicate a passive direction. I cannot see, on the basis of what I have read, how change in architectural style can be accounted for. I do not see evolution, growth, conflict, decay. I fail to see a basis for a creative esthetic, or a *history* of art.

The emphasis on the relationship between form and function, I feel, is mechanical. The suggestion that our "value-sense," or, shall we say, esthetic satisfaction, is connected with a "sense of surety," leaves out the element of surprise and shock in art, as in Futurism. The value of mystery and drama does not depend on a sense of security. Aristotle valued poetry for its cathartic, or purgative, effect. Where is the "sense of surety" in Picasso's "Guernica?"

I would welcome the opportunity to read a longer account of Professor Ames'

(Continued on page 16)

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(Continued from page 14)

experiments and a discussion of his specific contributions to esthetics. Several of the implications you attribute to his researches might be called old. Perhaps Professor Ames himself disclaims that they are novel. It should be remembered that we are heirs to a considerable amount of research in physiology and psychology of vision anteceding by centuries the scientific studies in the nineteenth century by Young, Helmholtz, and the Impressionists. Right at the present time, we have the school of Gestalt psychologists who, following the trend of Kohler, Kofka, and Wertheimer, are making new investigations in physiological optics. Moholy-Nagy's teaching is connected to this trend, and Kepes, who taught previously at the Chicago Institute of Design, has recently issued a book, *The Language of Vision*, in which, acknowledging his attachment to the Gestalt school, he goes into detail about our sensation to color, space, motion, all of which he relates to the idea that vision is a creative act involving the whole man.

My feeling is that the virtue of Professor Ames' studies lies in its possible correlation with a humanistic approach to architecture. Art, just as Aristotle said it was, is, after all, a *human* activity. How we see things, how we arrive at our criteria of beauty, how we create, is deeply rooted in our composition as human beings and in our experiences as human beings. In elucidating the physiology and psychology of vision and, as a result, our esthetic processes, the experiments of Professor Ames would be significant, but not as an esthetic creed as I can gather so far from your "Progress Report."

MILTON F. KIRCHMAN
New York, N. Y.

Mr. Kirchman's reaction to the article about The Hanover Institute (formerly called Dartmouth Eye Institute) experiments in visual perception may prove that Dr. Ames was right in saying that no brief summary of the work could be made, and that the phenomena must be experienced in the laboratory to be understood. However, there are several points in the letter above which raise general questions. In the first place, it does not seem a valid objection to physiological or psychological research to say that some of the implications discovered "might be called old." If new studies support old theories, we should simply feel safer of our ground. Then neither Ames nor P/A *contends that the experiments are producing an "esthetic theory based solely on visual experience." Ames is merely studying visual sensations and reporting his findings; a number of students in the field of esthetics have found that the studies help them understand esthetic experiences.*

The statement of Kirchman's which opens a great field of controversy is his dissatisfaction with the "sense of surety" which, Ames' findings seem to indicate, is essential to the value one derives from architecture. Surprise, shock, even a purgative effect, seem to Kirchman to be proper objectives for design. Isn't this forgetting the purpose of buildings? Isn't architecture the provision of shelter which will, in the most agreeable possible way, modify man's physical environment beneficially? Architecture can't be nonobjective; it deals with useful objects.

To put it in Dr. Ames' own words: "(Shock) may play a role in education to awaken people out of a static world in which they have encompassed themselves and therefore may serve a purpose in such arts as writing and poetry, drama, and in the pictorial arts. But it would seem apparent that its introduction into man's artifacts, whose function is to help him carry out his purposes, would only lead to confusing the users as to the use of the artifacts."

T. H. C.

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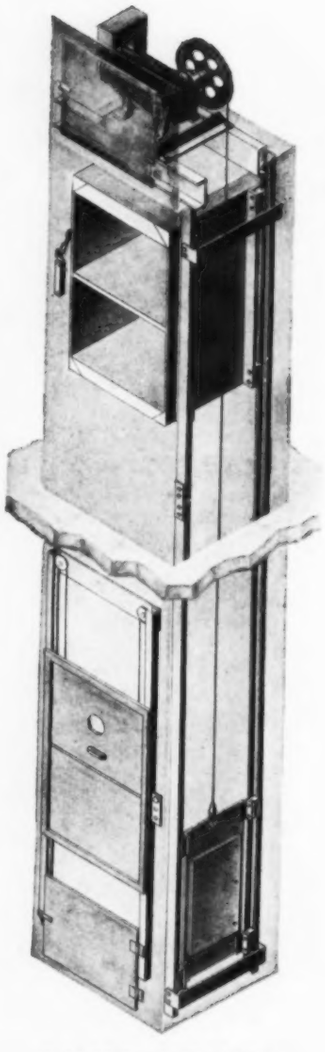

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P/A Progress Report

Town planning, as any student of the subject knows, has been largely a matter of theory in the United States. Examples of planned communities are so rare as to be classic; discussions, treatises and books, symposia and exhibits, have had to satisfy those who would rather see concrete results.

A number of recent planning studies for small communities and minor regions may mark a break in the impasse. In our present mood, there does not seem to be much chance for any great regional planning projects on the TVA scale. The growth of the large urban centers seems to remain largely a matter of expediency. Under those circumstances it is hopeful, and perhaps significant, to find towns like Fairfield, Connecticut, and Harrison, New York, engaging competent planning consultants to prepare studies for them.

P/A has already documented some of the work of Arthur D. McVoy (March, 1947) who, with Plan-Tech Associates, is making studies for several communities. Churchill-Fulmer Associates have completed studies for a number of towns; Technical Planning Associates in New Haven, Connecticut, have made "pilot studies" for several New England towns and cities. Arthur A. and Sidney N. Shurcliff, of Boston, are doing the same job for other communities. The Village of Millbrook, New York, has published "The Millbrook Plan," arrived at by an exceptionally competent citizens' planning and zoning committee with the technical advice of Walter C. Jago, architect consultant. Granted that these are isolated, tentative efforts; they still indicate that local citizens are interested in studying the growth of their towns, and the relation of their areas to adjacent ones. The possibilities in this grass-roots approach to planning are so great that it is worth examining some of the studies to see what the procedure is.

Typical of the work of the Churchill-Fulmer office is a study for the Sewickley District in Allegheny County, Pennsylvania. Four adjacent boroughs collaborated in sponsoring the project, as the Sewickley District Planning Association. The report, for this rather wealthy residential area near Pittsburgh, is a model of analysis; the recommended program is divided into "immediate steps" and "long-term plan." Some parts of the report are extremely quotable. For example:

Realization: "No 'plan' can be carried through without the will of the people of a community. A sound plan will be of benefit in one way or another to all. All must be represented in the long-range councils: rich, poor, white, colored, tenants, landlords."

Housing: "The substandard housing or blighted conditions that are in evidence in Sewickley Borough should be of sufficient concern for the community to take action to eliminate them. The failure of the community to prevent the development of such housing is no reason that it should be ignored. Not only are these housing conditions a drain on public finances; they are cancerous growths that affect adjacent properties and even neighborhood areas."

Zoning: "The rehabilitation of blighted neighborhoods requires far more than zoning regulations. In the case of the Dickson Street section of Sewickley Borough, zoning cannot change the character of this substandard area. The improvement of this area can only be made by a redesign of the neighborhood, wholesale land acquisition for housing, private or public, or for such public purposes as recreation areas. Zoning becomes simply one of a number of instruments in the process of a redevelopment program."

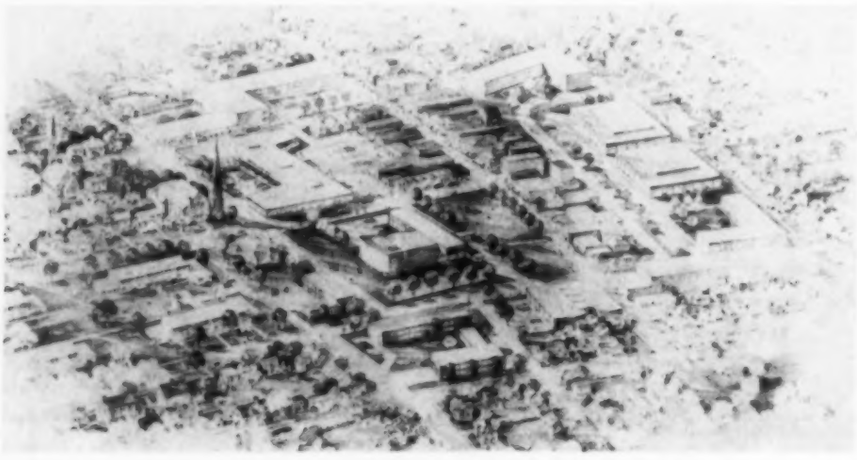
Subdivision Control: "Subdivision is the process of using raw land in the design and development of new urban centers. Considerations determining the subdivision design, at the moment, such as amount of profit or cost of engineering, will frequently determine lot sizes, locations and width of streets, and location and size of water and sanitary utilities which, so far as the basic pattern is concerned, will remain substantially the same from then on. These initial considerations eventually lose much of their significance, but good or bad, the community must live with the results. . . . Poor subdivision design is therefore a first step toward the creation of substandard housing."

Finances: "Money is cheap, now. The present rate of interest on long-term bond issues in some cases is less than one and one-half percent and certainly not more than 2.5 percent. If expenditures following World War I are any indication of what may happen when interest rates on highest grade municipals sell at rates between 4.5 and 5 percent, it seems desirable that communities with favorable financial conditions . . . study ways and means, now, to establish funds on a long-term financial plan with an orderly debt retirement program, and thence gradually shift to a pay-as-you-go policy."

●

A "pilot study" for the town of Fairfield, Connecticut, typifies the work being done by Technical Planning Associates. The brochure which has been issued studies in general terms the background of the town and the region, traffic problems, industry, residential neighborhoods, zoning, and subdivision control. It advises on how to set up a capital budget, and how to develop a master plan. It concludes by pointing out that the study that has been made is simply a preliminary, and that "the next step is to study these problems in greater detail, giving all who are interested a chance to contribute their ideas . . . The 'Master Plan' must always be flexible enough so that changes can be made to meet new conditions. It will not be adopted all at once, for some parts will take definite form earlier than others. However, it will at all times represent the best thinking of the town about its own future."

It is interesting to note that in the Sewickley study an economist (Homer Hoyt) and a town planner (Carl Gudat) worked with architects Churchill and Fulmer. The group that calls itself Technical Planning Associates includes a city planner, an engineer, an attorney, a land architect, and three architects—M. H. Lincoln, Lawrence Moore, and Douglas W. Orr, A.I.A. president. This sort of teamwork is proving highly successful in these and other instances. It indicates that forward-looking architects are finding planning important.



Proposed Redevelopment of Sewickley Borough, Allegheny County, Pennsylvania
Churchill-Fulmer Associates, Consulting City Planners, New York, New York

Feature

Ezra Stoller

HOUSE

MINNEAPOLIS, MINNESOTA

"IDEA HOUSE II" FOR THE WALKER ART CENTER*

WILLIAM M. FRIEDMAN and HILDE REISS (of the Walker Art Center Staff), Designers; MALCOLM E. LEIN, Associate

Built on the grounds of the Walker Art Center purely as an educational venture, this is the second complete "Idea House" that institution has built to guide the public toward a sound contemporary approach to useful and comfortable living quarters. "This house is simply an extension of our Everyday Art program," comments D. S. Defenbacher, Art Center Director. "Our aim is to show people that a modern house is not the product of gadgetry but is achieved through planning based on an intelligent evaluation of today's living with today's utensils." Objectively studied to provide a good, durable living environment for a family of four, the 19,000-cubic-foot house consciously employs materials and structural methods that are available today, rather than experimental methods or products still in the laboratory-potential stage.

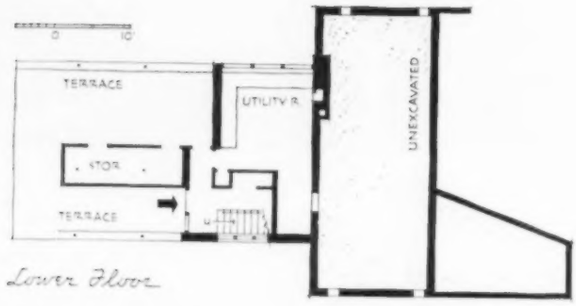
* *Co-sponsored by the Walker Art Center and the Home Institute, Northwestern National Bank of Minneapolis.*

Hedrich-Blessing

WALKER ART CENTER: The Museum's new facade (Magney, Tusler & Setter, architects) is presented on pages 48-49.

Ezra Stoller Photos

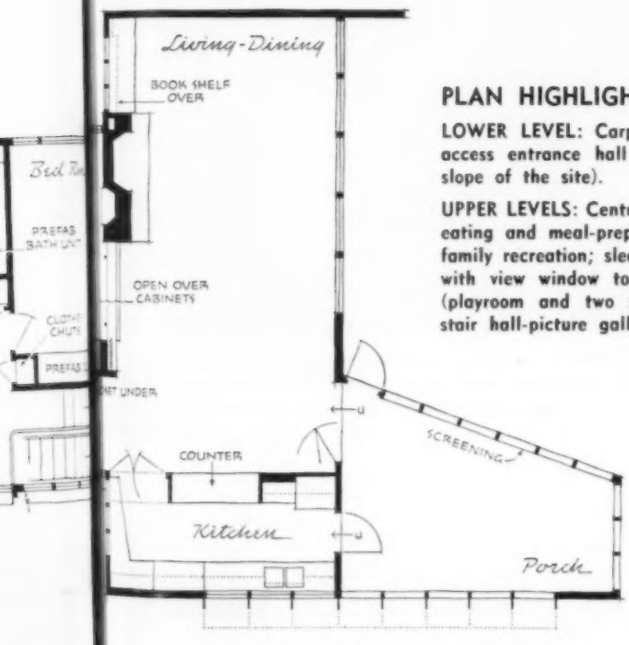
AT LEFT: Northeast view. Morning sun floods the bedrooms; wall to the north and least favored exposure is blank. The rectangular, wooded site has a 12-percent slope down toward the north; street frontage is on the west.



Lower floor

Upper floor

ABOVE: From the southeast, the family living area is apparent at left, with the plan so worked out as to provide privacy from both the street and the entrance sides of the house. The roof has a summer-sunshade overhang 5 feet deep. As will be seen in the interior views, exterior finish materials are carried right into the house. All exterior trim is painted white; gutters, pipe columns, etc., are aluminum-painted.



PLAN HIGHLIGHTS

LOWER LEVEL: Carport; bulk storage space; utility room; multi-access entrance hall (all economically organized in the downhill slope of the site).

UPPER LEVELS: Central hallway; "four-in-one" living area, including eating and meal-preparation activities as well as entertaining and family recreation; sleeping wing on separate level; bed-sitting room with view window to living area; flexible apartment for children (playroom and two sleeping-study alcoves); multi-use bathrooms; stair hall-picture gallery.

HOUSE, MINNEAPOLIS, MINNESOTA

WILLIAM M. FRIEDMAN and HILDE REISS, Designers

MALCOLM E. LEIN, Associate

The house is arranged on three levels, a device that takes advantage of the site slope and results in good functional separation in the plan. Oriented to gain full solar values in the main living area, the house is further comfort-conditioned by means of a year-round, gas-fired air conditioning system. Throughout the house, built-in, prefabricated storage units have been incorporated. Construction methods and the materials used are conventional—frame and masonry elements, concrete block, natural redwood, plywoods, glass. But these have been freshly employed to produce an integrated, contemporary design.

AT LEFT: View from street side (northwest). Family living area completely shielded; garage and sheltered entrance walk to front door at left. In the kitchen wing at right, a projecting, slatted sunshade screens the hot afternoon sun. Exterior walls are of vertical redwood siding. •

FIREPLACE WALL: Masonry is concrete block. High windows (left) open into bed-sitting room and (right) to outside north light. Prefabricated storage units form wall at left of fireplace.

HOUSE, MINNEAPOLIS, MINNESOTA

STAIR HALL: The directional light units in the ceiling both provide general illumination and spotlight "exhibits." The bedroom wing is concealed around the corner of the upper level (rear of photo); front door appears at left (downstairs).

LIVING ROOM, toward southern window wall (large, fixed glass panes with ventilating transoms above); the ceiling and far wall of the room are of redwood, echoing the exterior wall finishes; asphalt tile is used for flooring. All upholstered furniture is covered with a dark blue herringbone tweed; furniture is light wood. The lowered light fixtures at right bring light down on the dining-work-play table. The room is planned and the furniture arranged so that several activities can take place at once—talk at the far end, music playing by the storage-wall units at left, eating or games around the big table at right.

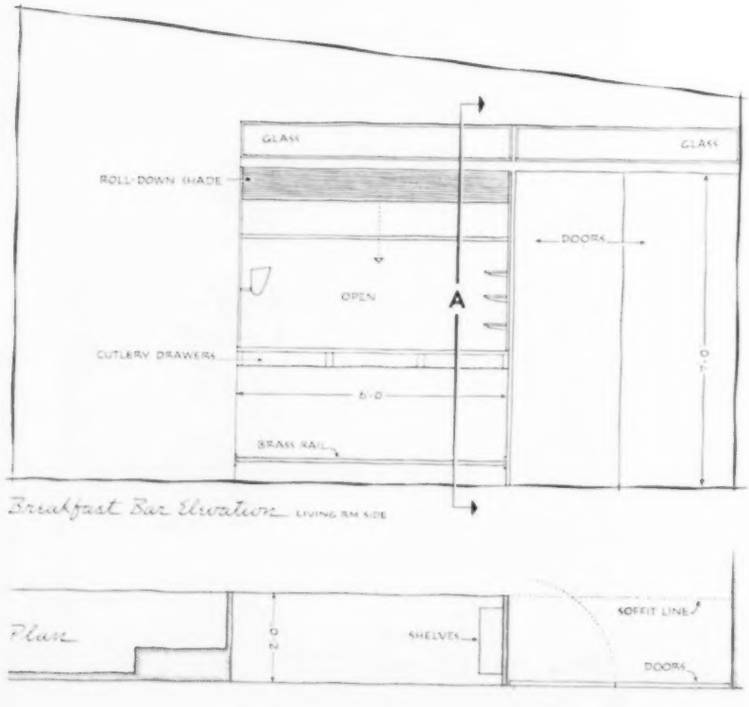
WILLIAM M. FRIEDMAN and HILDE REISS, Designers

MALCOLM E. LEIN, Associate

WILLIAM M. FRIEDMAN

THE DESIGNERS: **William M. Friedman**, Walker Art Center Assistant Curator, trained as an architect (N.Y.U.: Atelier Whitman-Goodman; U. of Minn.), later was Faculty Chairman, N. Y. Laboratory School of Design; worked with Norman Bel Geddes, and, as design head, Iowa WPA Art Project. **Hilde Reiss**, Curator of the Center's Everyday Art Gallery, studied architecture under Mies van der Rohe at the Dessau Bauhaus, subsequently working in New York industrial design offices and teaching (Laboratory School of Design, New School of Social Research, San Francisco Labor School). During 1943-45, she was Technical Consultant, Vallejo (Calif.) Housing Authority.

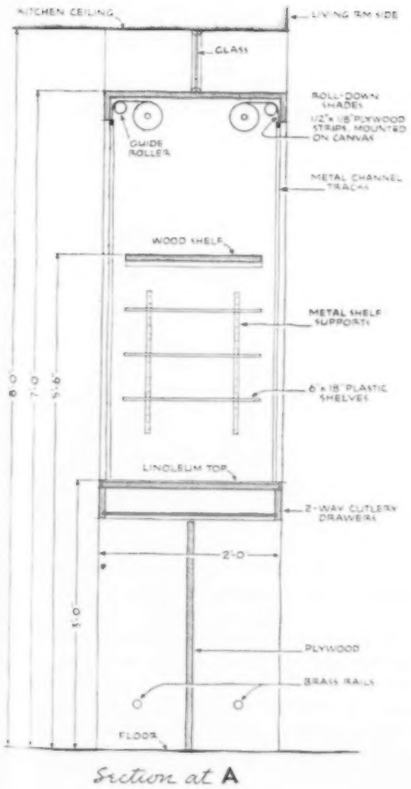
HILDE REISS



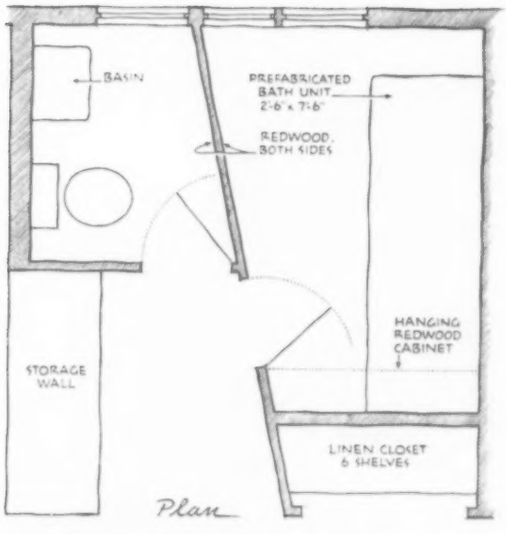
DINING, ETC.: At the west end of the living area is the kitchen which can be entirely cut off from the rest of the area (by means of a roll-down slatted blind and double doors) or opened up through, as shown in the photograph above. Meals may be taken either at the all-purpose family table in the big room or at the pass-through bar, equipped with adjustable, high chairs on both sides. Also, in this immediate area and served by doors from both living room and kitchen, is the screened living porch, opened on the east and south to the private family garden and cut off from the street view and noise by a solid wall to the west. In the kitchen proper, there are windows on north and west walls (the latter sun-screened by a fixed wood-slatted "eyeshade"). There are two counter heights—36" at the sink, 32" at the right of the stove to allow work while sitting. Cabinets are birch; the counter top, a dark gray linoleum.

HOUSE, MINNEAPOLIS, MINNESOTA

WILLIAM M. FRIEDMAN and HILDE REISS
Designers MALCOLM E. LEIN, Associate



Section at A



Plan

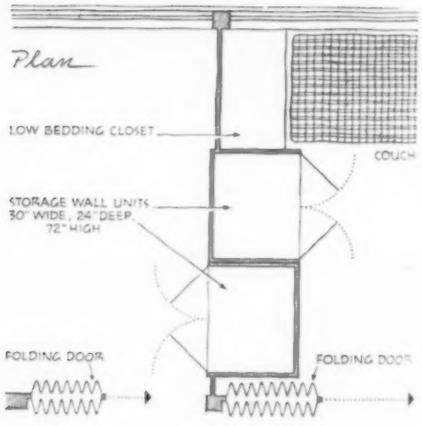
BATHROOMS: On the bedroom level is a flexible, two-room arrangement of toilet and bathing elements. One room contains complete bathroom facilities in a factory-fabricated, one-piece unit that includes a swing-around lavatory. Turned to rest above the toilet, the lavatory is completely out of the way of the bathtub; turned the other way over one end of the tub, it forms a handy-height baby's tub as well as an adult lavatory. In the adjoining room are standard toilet and lavatory units.

PRIVACY FOR THE CHILDREN

HOUSE, MINNEAPOLIS, MINNESOTA

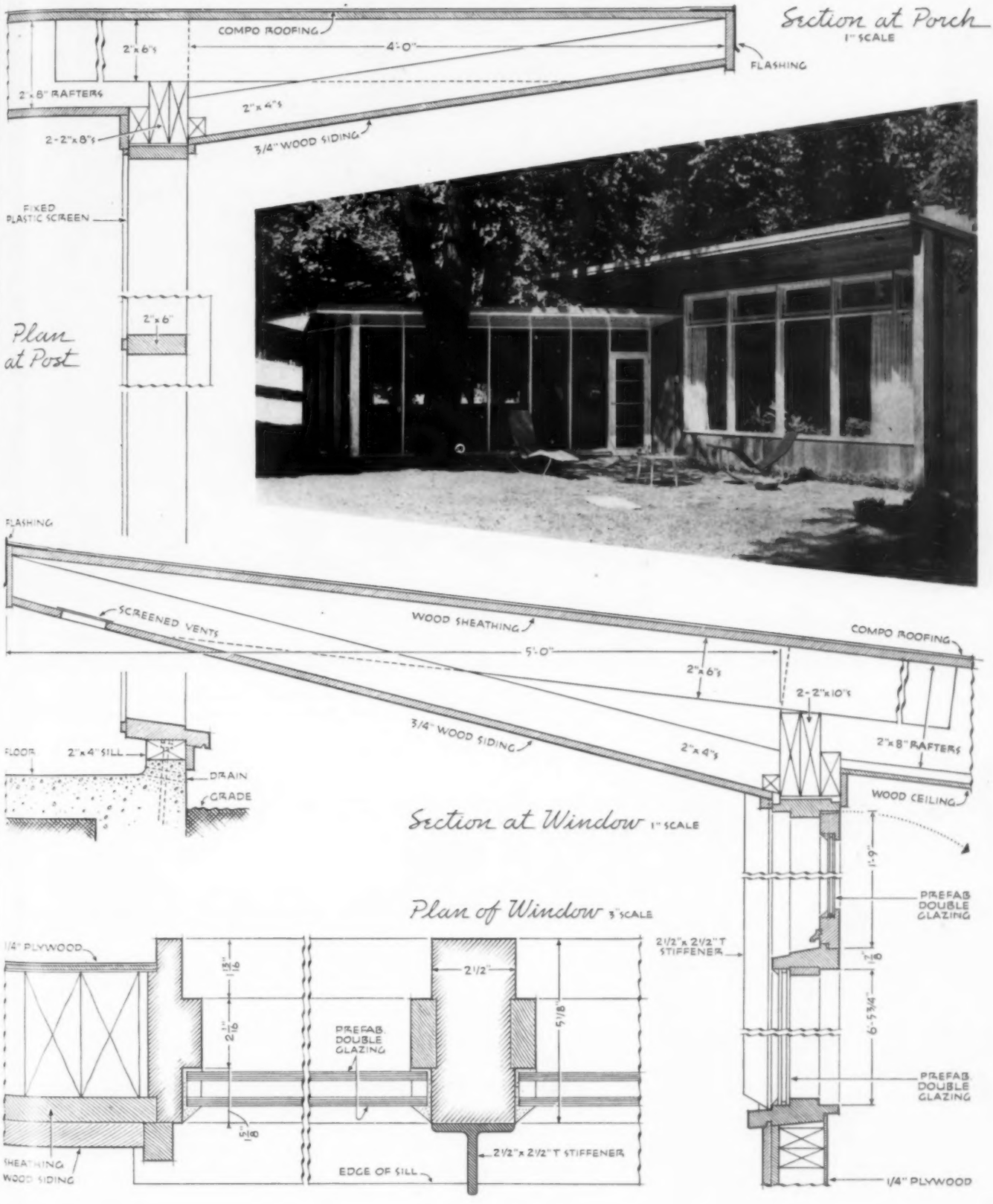
WILLIAM M. FRIEDMAN and HILDE REISS, Designers

PRIVACY FOR THE PARENTS



MALCOLM E. LEIN, Associate

BEDROOMS: For the two children, a small private apartment is provided. Folding, sliding partitions form separate sleeping-study rooms (with storage units between); for daytime use, with partitions pushed back, these open up to become one with the adjoining playroom. The parents' bed-sitting room has its own fireplace, allowing parents a pleasant refuge from a living-roomful of children, while still able to maintain control through windows overlooking the lower room.

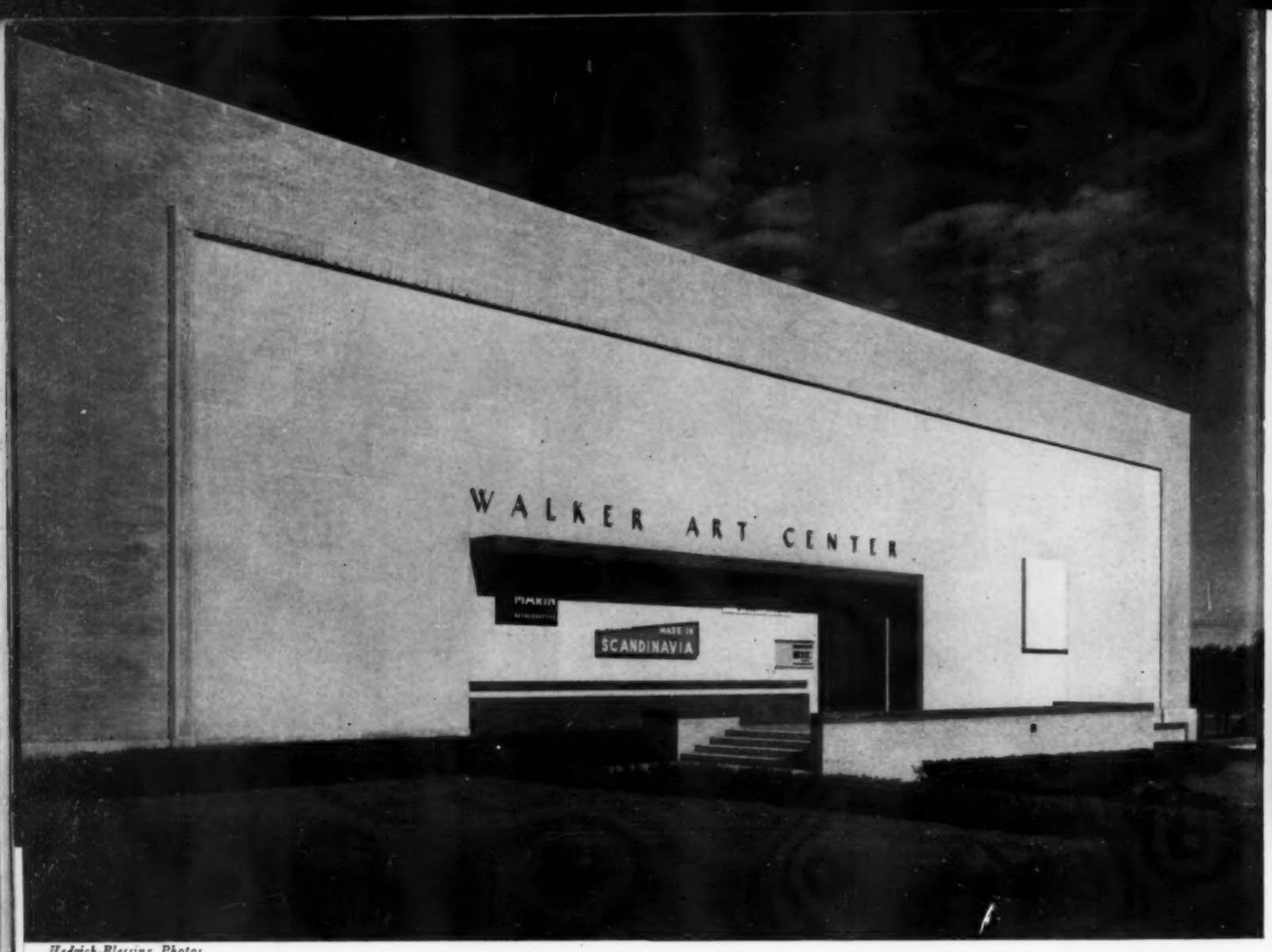


HOUSE

MINNEAPOLIS, MINNESOTA

WILLIAM M. FRIEDMAN and HILDE REISS, Designers

MALCOLM E. LEIN, Associate



Hedrich-Blessing Photos

The 9-foot square of stone on the upper right of the facade is intended for some form of decorative treatment. To obtain this element, the Art Center is considering a nation-wide competition.

MUSEUM FACADE

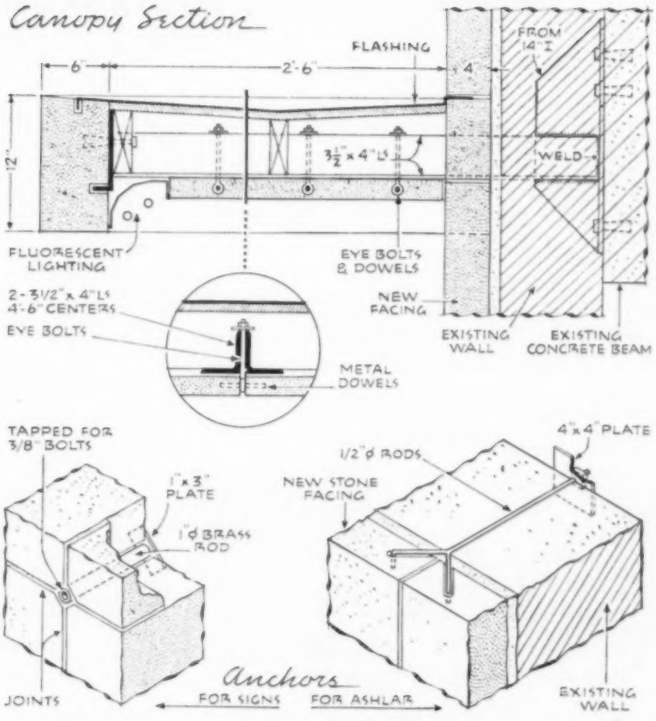
WALKER ART CENTER, MINNEAPOLIS, MINNESOTA

BEFORE: Original building, completed in 1927; Long & Thorshov, architects. For work this firm is *NOW* doing, see the special feature in our next month's issue.

MAGNEY, TUSLER & SETTER, Architects

This is frankly a face-lifting operation, as the other sides of the museum remain essentially as they were. Simple and architectural in organization, the new facade not only dramatizes the Center, but serves as a flexible, ordered billboard for museum activities.

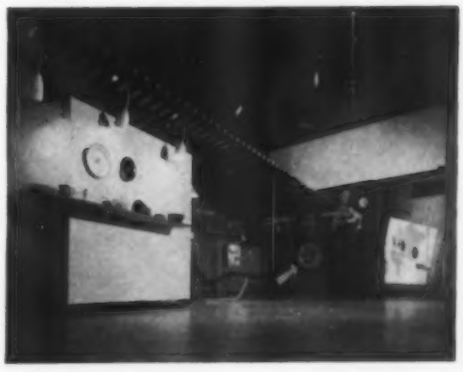
Replanning consisted chiefly of relocation of walks, etc., and elimination of troublesome gallery windows; hence, we let the photographs tell the planning story. The resurfacing involved removing the terra cotta mask and installing a face of local limestone and red granite; entrance doors are of wood, with trim painted blue.



"BILLBOARD": The 48-foot, red granite canopy contains double rows of cold cathode tubing for illumination of the sign space. For attachment of signs, bronze lugs were tapped and inserted at the joints of the stone veneer in a 3-foot grid. Any sign using unit panels and forms can be readily installed. The architects point out: "Whether or not a sign is in place, the architectural effect is unimpaired."

THE ARCHITECTS: **Gottlieb R. Magney,** structural and mechanical engineer and architect, received his training at the U. of Minn. Work with firms in Minneapolis, San Francisco, and Duluth preceded the founding of the firm of Magney & Tusler, Inc., in 1917. **Wilbur H. Tusler,** former president of the Minneapolis Chapter, A.I.A., studied at the U. of Minn., receiving his architectural degree at the U. of Penn. He joined Mr. Magney in the founding of the firm after working in offices in Philadelphia and Minneapolis. **Donald P. Setter** had his architectural training at Cornell, thereafter working with Buffalo, Ithaca, and Minneapolis architects before joining the present firm in 1938. The office's chief designer, he is also president of the Minneapolis Chapter, A.I.A.

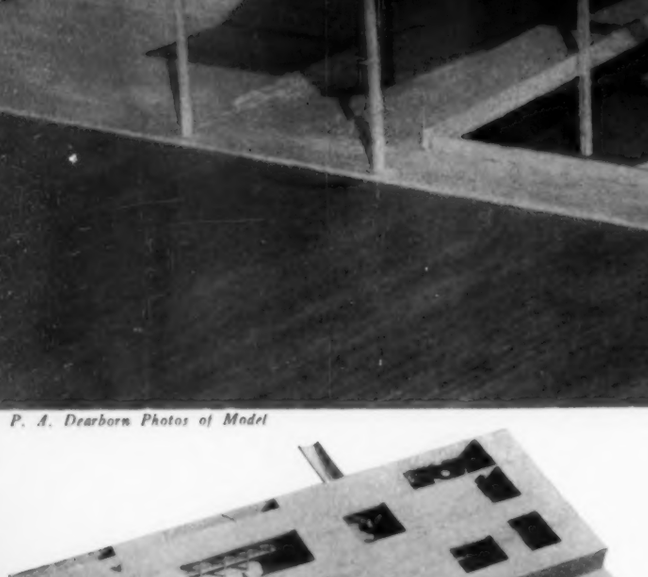
GALLERY FOR CERAMICS



EVERYDAY ART GALLERY

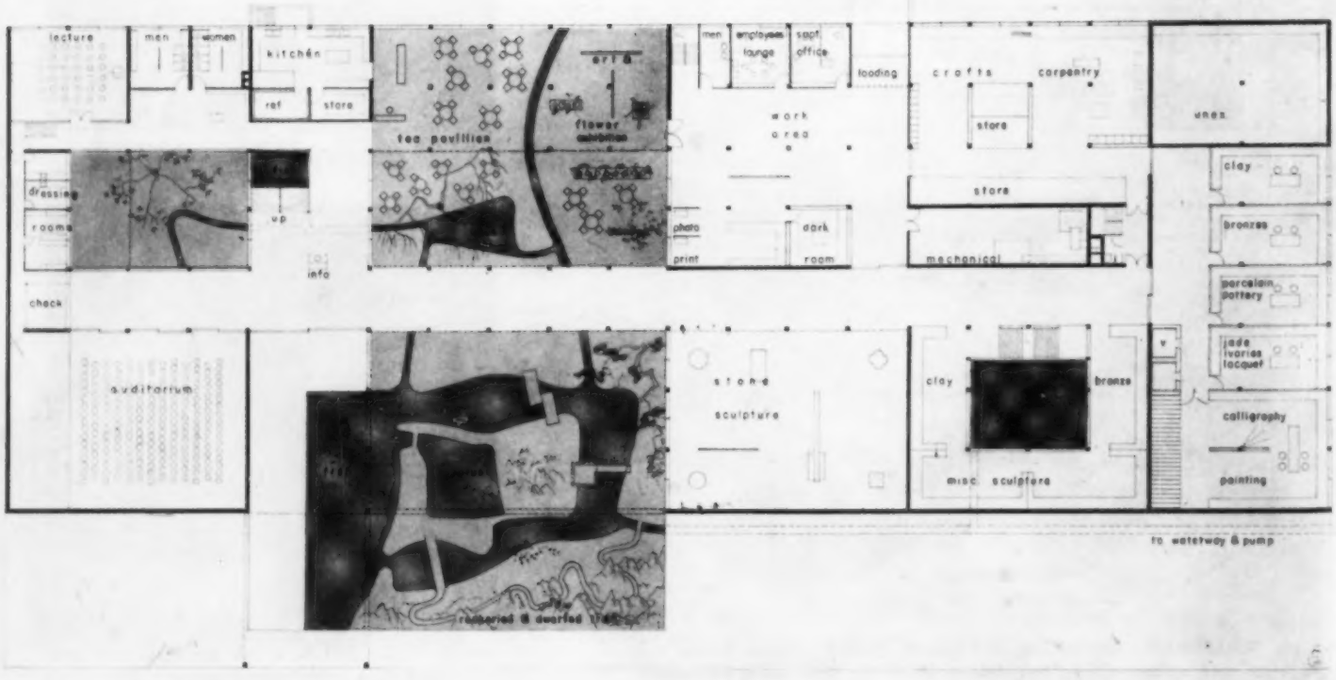
INSIDE THE CENTER, a few galleries have been redesigned in a contemporary manner. Above: the gallery for ceramics is the work of William M. Friedman. The Everyday Art Gallery was designed by Hilde Reiss and William M. Friedman, chief designers of the "Idea House II" (pages 39-47).

P. A. Dearborn Photos of Model



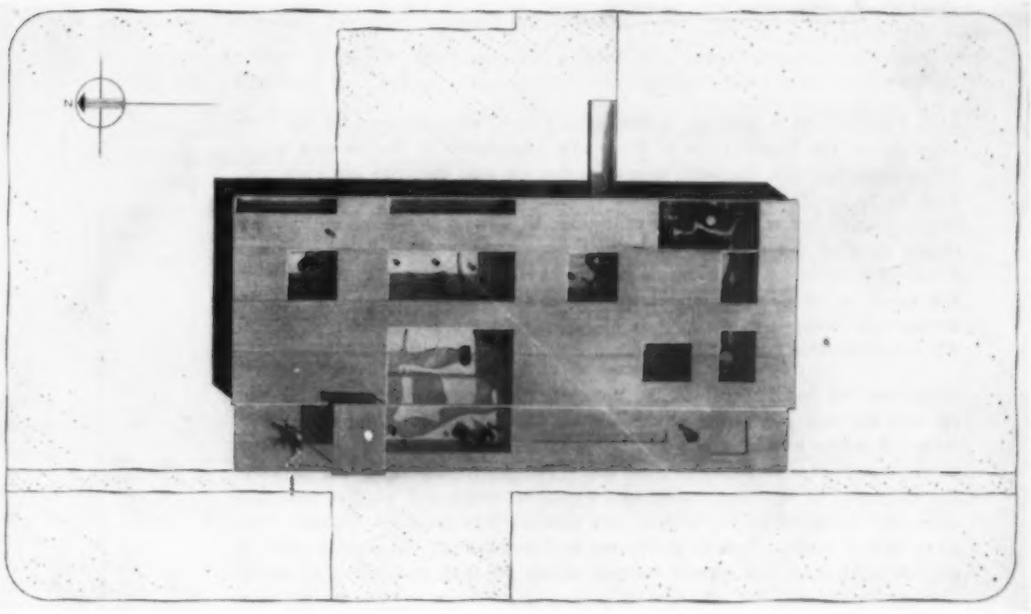
MUSEUM

This remarkable graduate-school project strikes us as an excellent synthesis of progressive design in addition to providing a much-needed architectural statement of a proper character for a museum today.



LOWER FLOOR: Tea Garden in center extends through building to walled court at rear; two-story gallery at right of this area entered from lower floor or viewed from upper-floor gallery. "The traditional Chinese garden is literally a garden of walls," Mr. Pei explains. "This building is sunk half a level below ground in order to create walls for the main garden while permitting a view into it from outside."

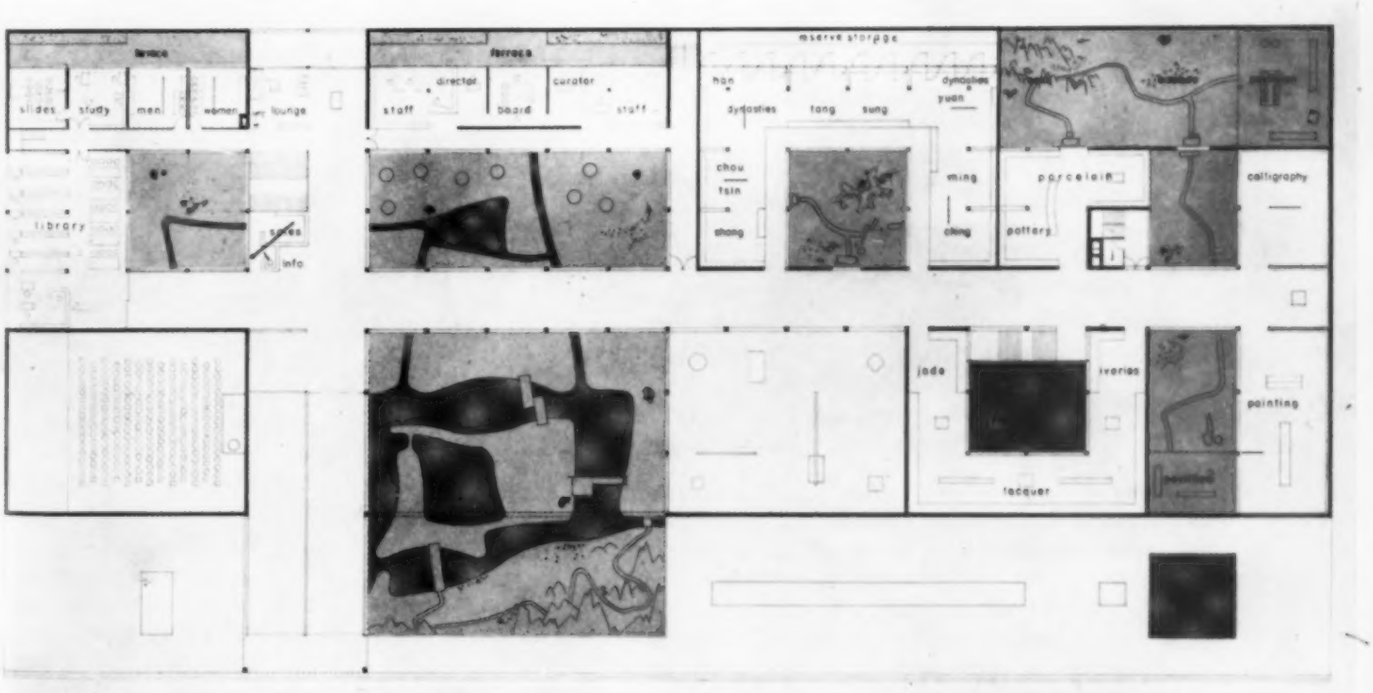
BACKGROUND: Planned to replace an inadequate structure that occupies a site within the city's new Civic Center, plans for which were completed in 1933, this design for a museum "befitting the dignity of the city of Shanghai" is developed as an integral part of the civic plan. The structure is low in relation to surrounding buildings; hence the architect has carried the marble facing right up onto the roof to give it visual importance equal to that of elevations. He hopes the treatment will "enhance the plastic and sculptural quality of the structure." The entrance canopy comes at an intermediate level, with a ramp leading either up or down a half flight to the two main exhibit floors.



FOR CHINESE ART, SHANGHAI, CHINA

I. M. PEI, Architect

On page 52, Dr. Gropius gives his opinion of its importance. In approaching the design, Mr. Pei felt that "a technically perfect (artificially controlled) space alone was insufficient and unsympathetic." To create the desired sympathetic environment, he has employed walls and landscaped courts to heighten the esthetic appeal of the collections. From the entrance canopy, ramps lead to the two main floors.



UPPER FLOOR: Collections are arranged in chronological order around landscaped courtyards. "All forms of Chinese art are directly or indirectly results of a sensitive observation of nature," says Mr. Pei. "Such objects, consequently, are best displayed in surroundings which are in tune with them, surroundings which incorporate as much as possible the constituting elements of natural beauty."

MUSEUM, SHANGHAI, CHINA

I. M. PEI, Architect

THIS PROJECT for a museum in Shanghai, China, was designed by Mr. Ieoh Ming Pei in the Master class of Harvard's Department of Architecture under my general direction. It clearly illustrates that an able designer can very well hold on to basic traditional features—which he has found are still alive—without sacrificing a progressive conception of design. We have today sufficiently clarified our minds to know that respect for tradition does not mean complacent toleration of elements which have been a matter of fortuitous chance or a simple imitation of bygone esthetic forms. We have become aware that tradition in design has always meant the preservation of essential characteristics which have resulted from eternal habits of the people.

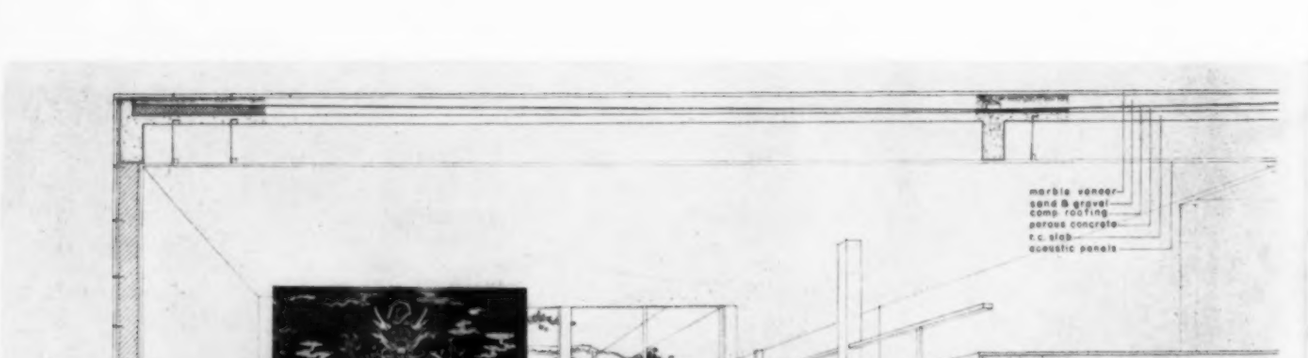
When Mr. Pei and I discussed the problems of Chinese architecture, he told me that he was anxious to avoid having Chinese motifs of former periods added to public buildings in a rather superficial way as was done for many public buildings in Shanghai. In our discussion we tried then to find out how the character of Chinese architecture could be expressed without imitating such form motifs of former periods. We decided that the bare Chinese wall, so evident in various periods of Chinese architecture, and the small individual garden patio were two eternal features which are well understood by every Chinese living. Mr. Pei built up his scheme entirely on a variation of these two themes.

This design was highly prized by the Harvard Design faculty because we thought that here a modern architectural expression on a monumental level was reached.

Walter Gropius

Walter Gropius, Chairman
Graduate School of Design
Harvard University

I. M. PEI came to this country as a student in 1935, obtaining his Bachelor of Architecture degree at M.I.T. in 1940; in that same year, he was awarded the A.I.A. medal and M.I.T. Traveling Fellowship. From 1942 to 1945 he worked as a concrete designer for Stone & Webster, was appointed Wheelwright Fellow at the Harvard Graduate School of Design, and served with the National Defense Research Committee at Princeton, whence he returned to Harvard. He earned his Master of Architecture from Harvard in 1946, worked in the office of Hugh Stubbins, Jr., and is at present teaching at the Harvard Graduate School of Design.



SECTION THROUGH LARGE GALLERY: Radiant heat, integral light sources, and continuous finishes. This section looks toward the entrance garden court, at right of which is a modern translation of the traditional Chinese Tea Garden. Usually located in the market place, or near the temple grounds, to serve men of all classes as a social center and place for intellectual exchange, its inclusion here in a museum is with the hope that it will help make the institution a living organism in the life of the people, rather than a cold depository of masterpieces.

Office Practice

EDITORIAL NOTE: This article, by an attorney whose clients include a number of architects and engineers, inaugurates a series of articles on office practice subjects which will run intermittently through the year. This material will be supplementary to the data in Cowgill and Small's book, "Architectural Practice," published by Reinhold Publishing Corporation.

Mr. Tomson's statement should be useful not only to the young man beginning practice, but might equally well be checked by the older firms against their standard procedure. The subject of the contract with the client is receiving a great deal of professional attention these days. The New York Chapter of the A.I.A. has recently published a short, sensible document on the Services of the Architect, as well as two documents explaining the percentage-fee and the cost-plus-fee contracts to potential clients. In Cleveland, Ohio, a number of architects are using a new contract form developed by Richard Hawley Cutting and Anthony S. Ciresi, architects. This document has been, we understand, submitted to the A.I.A. for consideration as a standard form. Comments on Mr. Tomson's article would be appreciated; we will print those that seem to add something to the discussion.

You . . AND YOUR CLIENT

By BERNARD TOMSON

The architect best serves his client who first puts his own house in order. Architects are planners—they design and plan homes for others to live in efficiently, commercial buildings for others to work in efficiently, recreation areas for others to play in efficiently. Most members of the profession, however, will agree that they seldom take the time to plan so that their own businesses operate efficiently, economically, and profitably. Members of no other business or profession will as casually and unknowingly risk the monetary fruits of their labor. **Most architects approach the problem of entering into a definitive agreement with a client with great timidity. The result is that very often no understanding at all exists or the agreement is so vague and indefinite as to be unenforcible.**

An architect who embarks upon a project without a well defined agreement may incur minor or major monetary loss. Every member of the profession has been the victim of the owner of property who has the architect spend several mornings or afternoons at a site, for no other apparent purpose than to have him approve in general terms the owner's vague ideas and affirm his exclamation, "Ain't it a beauty." This situation may only involve a minor monetary loss, although the architect has only his time, ability, and experience as his stock in trade. Far more serious consequences may result from proceeding beyond this "advice" stage with a poorly drawn agreement or no agreement at all. The architect is likely to find that he has worked himself into a position where he will receive inadequate or no compensation.

The truly unfortunate consequence of this type of architect-client dealing, however, is that a disservice is rendered to the **client** as well as to the architect. The architect may fail to get a just return for his efforts. At the same time the client may become dissatisfied, because he has proceeded in ignorance of the expenses and costs for which he is obligated.

The very nature of the architect-client relationship makes it morally the duty of the architect to define the terms and conditions under which he is retained at the inception of the relationship. Only then can the architect proceed freely to solve the problem for which he was retained, with reasonable assurance of having a satisfied client.

What form should the agreement take? Should it be a contract drawn for the particular situation or will a printed form suffice? Although it may be advisable to rely upon the A.I.A. forms primarily as a basis for negotiation, they should be modified to fit the particular case. Experience will indicate those changes or additions which will adapt standard forms to the particular operation of the user. Let us examine some of the modifications that might be made.

It is suggested that there be **a clause providing for a retainer fee payable at the time the agreement is signed.** This is particularly advantageous since it guarantees a minimum fee, and indicates at the outset to the client that the architect's time is valuable and that reimbursement is expected therefore—an elementary principle but one very often overlooked. The architect too often feels that to require the payment of a retainer will result in his losing the client. If such is the case, he should also realize

that he is better off. A client who does not expect to pay fees is not a desirable client.

In most cases it is probably desirable to provide for **periodic payments not only during the progress of the building operations, but also during the preparation of preliminary studies and working drawings.** The architect should know at the beginning, just as the client should, when the client is required to make additional payments. The architect is not a banker and should not be required to finance the client.

Another clause that might be desirable, for self-evident reasons, would provide that **the architect's estimates are to be binding for the purpose of determining the amount of the respective payments, until actual costs are finally determined.**

★ ★ ★

Since each case must be considered in the light of its own peculiar facts, there can be no blanket preference for one type of contract over another, though there is an increasing preference for the "three times drafting costs" arrangement.* This contract has serious limitations, however, when the architect's own services in the particular case are out of proportion to the time usually spent by him. The percentage contract, on the other hand, has obvious limitations where the work required is out of proportion to the net return. At times a combination of the cost-plus and percentage contract will be found most appropriate.

Where preliminary studies will require an inordinate amount of time and effort, it is probably advisable to use a cost-plus basis for the preliminary studies and a reduced percentage basis to cover the balance of the project. This arrangement recognizes the fact that the architect's preliminary studies make the greatest call on his imagination, and guarantees reasonable recompense at this stage.

★ ★ ★

How best can the architect avoid pitfalls in planning his business—in other matters as well as the contract provisions we have considered? Probably the most important single thing is to recognize the fact that running an office efficiently and profitably requires planning and competent advice. A profession that knows how important it is for a client to obtain the advice of an architect when building is contemplated should appreciate the function of professional advice from an attorney and accountant when legal problems and books of account are involved. It is earnestly suggested that you discuss at length the general nature of your practice with your attorney and accountant. Have them present at periodic office meetings so that they will have the proper background of knowledge of your current problems to advise you properly. **Submit to your attorney each and every contract to which you are a party. Follow the advice of the experts with whom you consult in the same fashion as you expect your expert advice to be followed.**

The benefits that flow from following this procedure are immediate and important. Records, proper from a legal and accounting standpoint, mean security from "wages and hours" claims, "social security" errors, unnecessary tax liability, and a host of other evils. They will accurately reflect the financial story for the client who is a party to a cost-plus arrangement. They will satisfy tax requirements. And, above all, the architect will personally benefit from plans carefully conceived, legally sound, and properly executed. Such plans can be evolved at regular office meetings attended by the architect-attorney-accountant team. They will pay dividends and will accomplish what every architect has a right to expect: a fair and profitable return for his efforts.

* *In the cost-plus-fee contract, the architect's fee—the amount paid him in excess of his costs—may be determined by one of three methods: negotiation, a percentage of the construction cost, or a ratio to the technical salaries. It is this third method that Mr. Tomson refers to.*

In summary, the matters for an architect to watch carefully, and the steps to take to insure a good business practice, include these:

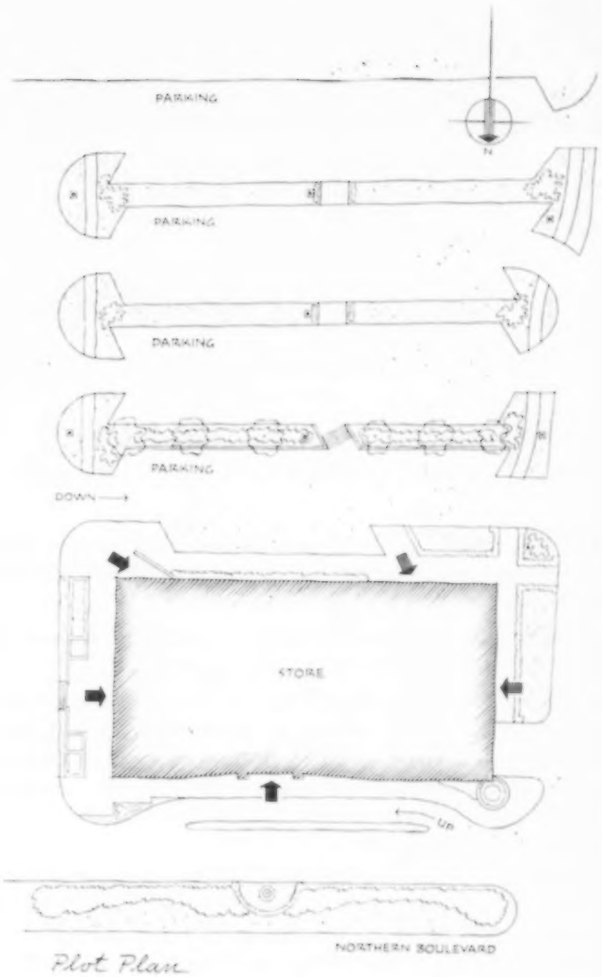
1. **Don't be timid about proposing a contract for your services.**
2. **Make clear the duties and responsibilities of both architect and client.**
3. **Modify the standard contract forms as necessary for each job.**
4. **Consider the advisability of a retainer fee.**
5. **Provide clearly for periodic payments through ALL STAGES of your work.**
6. **Make your estimates binding for fee purposes until actual costs are known.**
7. **Consider the cost-plus method of payment, at least for preliminary studies.**
8. **Secure competent legal and accounting advice.**
9. **Hold regular meetings with your attorney and accountant present.**

THREE STORES

Critique

In May 1947 we presented an inclusive Retail Store Critique analyzing numerous jobs of a widely varying nature that we considered illustrative of design progress. Herewith is our first supplemental study or "minor critique"—three recent retail establishments (a suburban branch department store and two specialty shops)—which emulate many of the points of view established in the initial Critique. In this instance, the editors undertook to serve as the jury; but, as usual, the designers had full opportunity to rebut, explain, or otherwise comment. Altman's branch store automatically solves the twin difficulties (encountered in any downtown store) of traffic congestion and what to do with the car when you get there. In the collaborative design presented here, the Hopkins office was chiefly responsible for site plan and design of the physical building; the Parrish office (consulting with Altman representatives) developed the merchandise plan, departmental layouts, and interior design.

The Editors



Plot Plan

1 B. Altman & Co. SUBURBAN DEPARTMENT STORE MANHASSET, N. Y.

ALFRED HOPKINS & ASSOCIATES, Architects

AMOS PARRISH & COMPANY, INC., Designers

Richard Garrison Photos

VIEW FROM SOUTHWEST: Cavity wall construction—exterior withe, granite; 2-in. air space; interior withe, terra-cotta block.

1. SUBURBAN DEPARTMENT STORE, MANHASSET, N. Y.

ALFRED HOPKINS & ASSOCIATES, Architects

AMOS PARRISH & COMPANY, INC., Designers

PROBLEM: To develop a department store within a building not to exceed 100′ x 200′ arranged on two levels, both accessible from grade.

SITE: A restricted lot along a main boulevard bordering an intensively developed community.

MAIN POINTS ADMIRED: Use of site, the store forward, with ready access to parking at rear; ingenious handling of two "ground floors" on a practically level site; efficient organization of floor plans (stairway in center, departments arranged to lead to this point with minimum confusion).

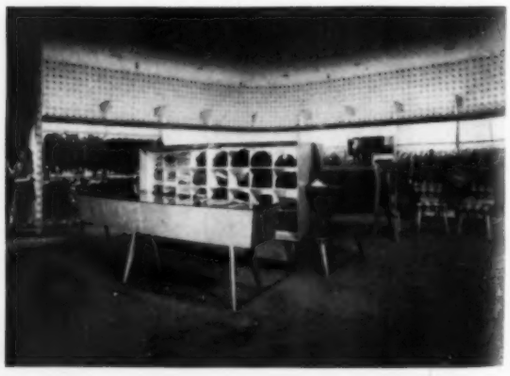
CHIEF POINTS QUESTIONED: Method of marking stock and delivery to departments (the area seemed small); relation of department layouts and exterior windows (in most instances the windows subtend departments; in two cases they simply adjoin secondary areas); the rather severe "look" of the exterior.

Regarding the limited space for receiving incoming stock, we learned that all merchandise arrives from the Manhattan store pre-marked and goes directly to departmental stockrooms. As to the apparent lack of integration between exterior windows and departments, the two firms of designers worked to the same general plan, but the need for construction speed made it necessary to proceed with major structural elements before details of departmental organization had been worked out. However, interiors are considered "expendable," and windows can be blocked or used as future conditions require. The formal appearance of the exterior derives from community restrictions requiring a measure of design conformity. Also, an atmosphere of solidity was specifically desired.

VIEW FROM NORTHWEST: Truck dock in prominent lower-floor corner. Structure, steel; stone concrete arches and fireproofing.

Ⓐ GIFTS: Much display in limited space. On one 15-ft. wall, 80 dinnerware patterns are shown.

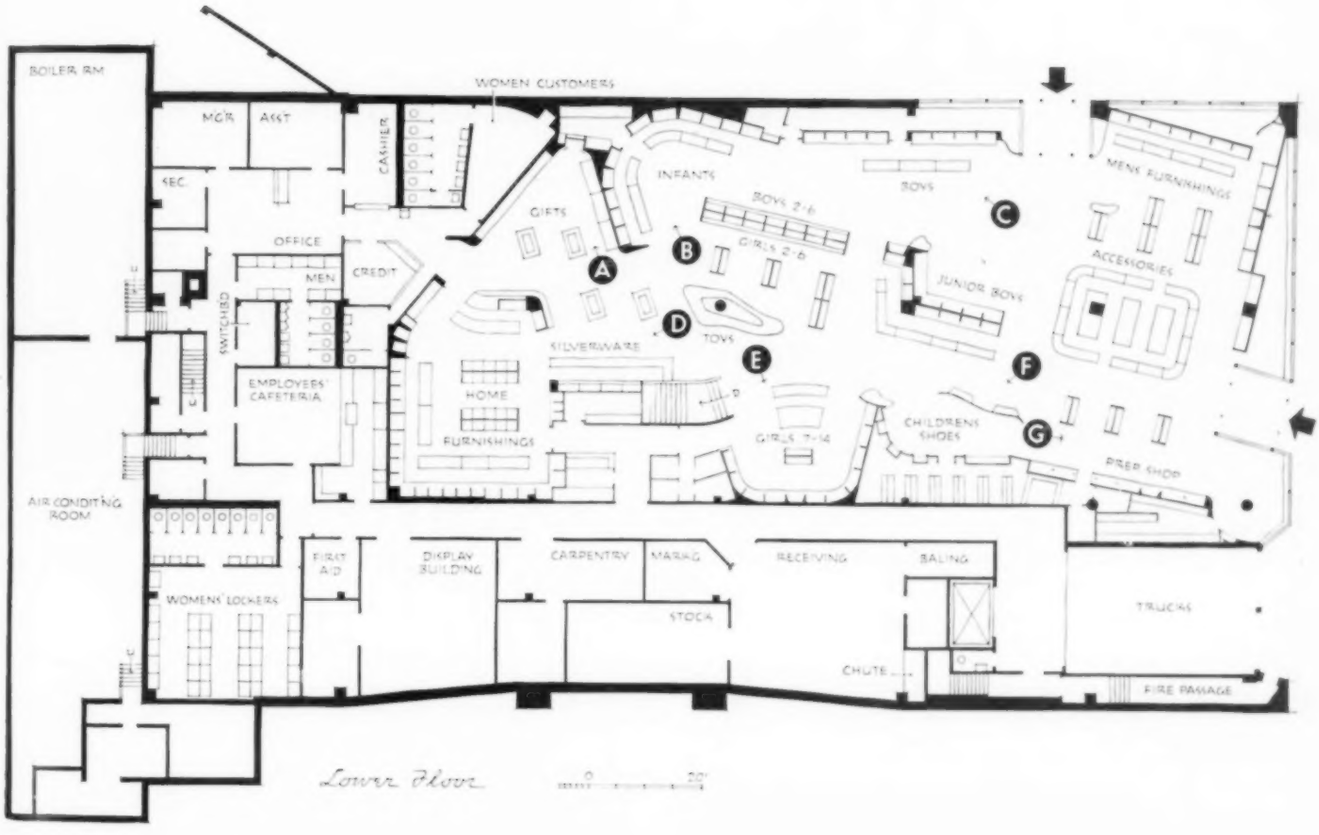
Ⓓ SILVERWARE: At foot of stair; wall case displays are protected by sliding glass doors.



Ⓔ GIRLS—7-14: An airy bubble-patterned wallpaper surfaces the wall above display.

B **INFANTS: Concealed fluorescent lamps downlight the displays as well as flood upper walls.**

C **BOYS: Casework designed around merchandise; wood and leather give the masculine touch.**

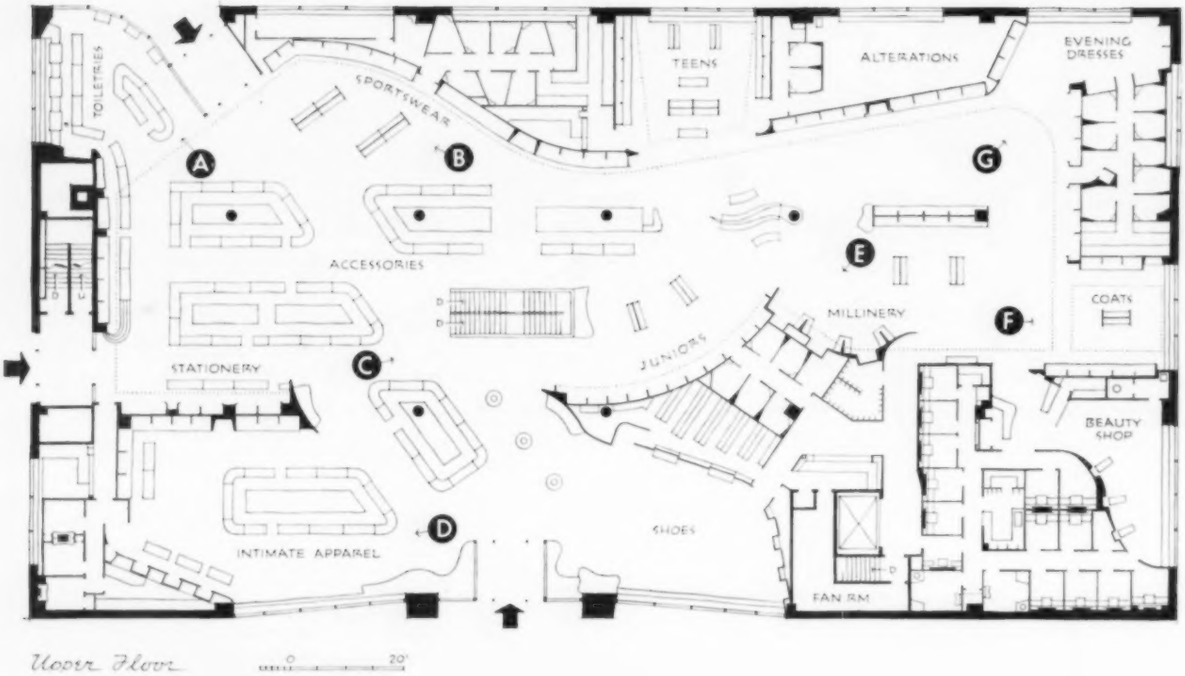


F **CHILDREN'S SHOES: A serpentine wall finished in scored plywood defines the department.**

G **PREP SHOP: Near an entrance; the angled canopy subdivisions divide merchandise by sizes.**

Ⓐ **TOILETRIES: Southeast corner. Painted plaster walls; lacquered display case frames.**

Ⓑ **SPORTSWEAR: Deeply textured, natural wood surfaces the curved superstructure wall.**



Floor Plan 0 20'

Ⓓ **INTIMATE APPAREL: At left of boulevard (north) entrance. Windows offer pleasing outlook.**

Ⓔ **MILLINERY: Squares of wood mounted on fabric form the background for the dressing tables.**

C **VIEW TOWARD CENTRAL STAIRCASE:** Etched glass balustrade set in stainless steel frame. Shoe department and boulevard entrance, around corner at right.

1. SUBURBAN DEPARTMENT STORE, MANHASSET, N. Y.

ALFRED HOPKINS & ASSOCIATES, Architects

AMOS PARRISH & COMPANY, INC., Designers

F **COAT:** Lighting combines incandescent units recessed in ceiling and fluorescent in coves.

G **EVENING DRESSES:** Northwest corner of the floor. Lighting fixture leads the eye around.

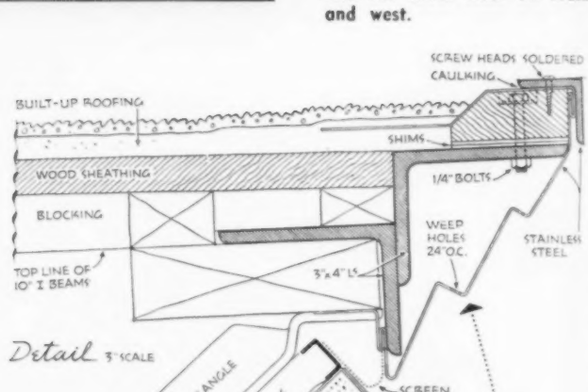
EXPOSURE of the building required some sun screening and protection for the public. A marquee encircling most of the building protects the upper floor on the north and east and the lower floor on south and west.

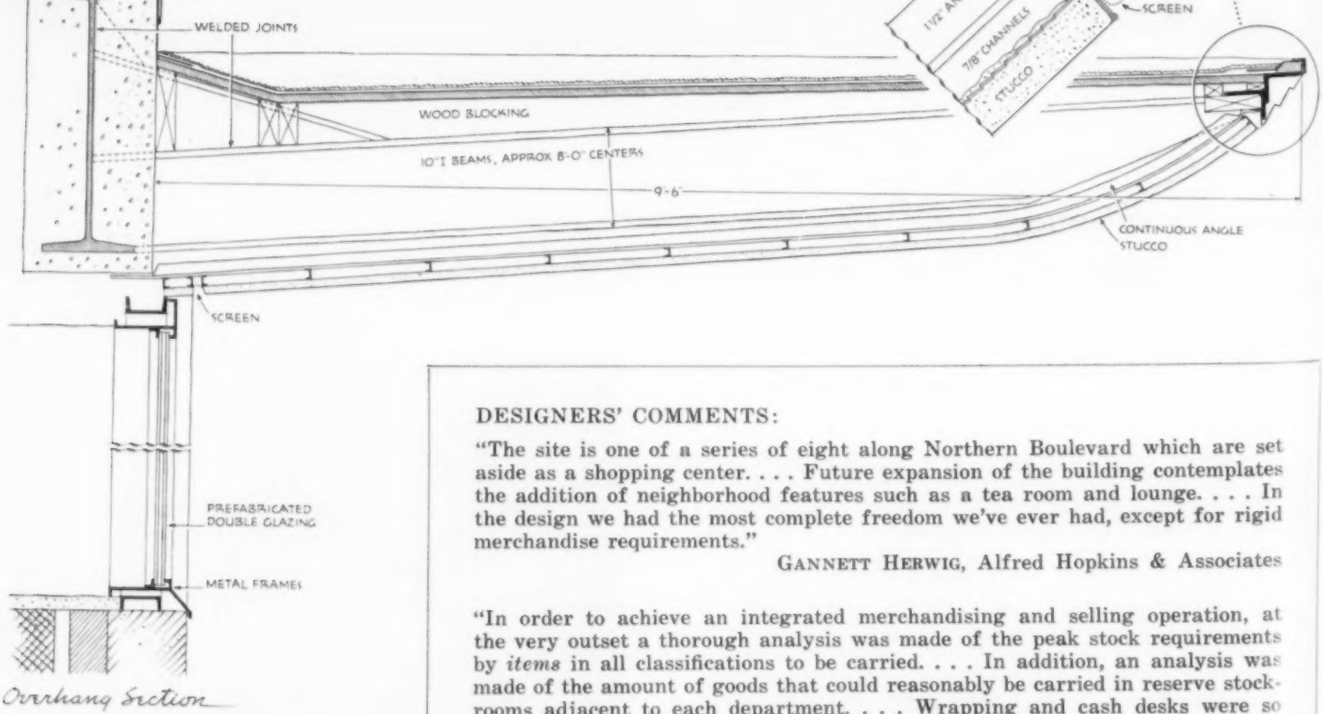
1. SUBURBAN DEPARTMENT STORE

MANHASSET, N. Y.

ALFRED HOPKINS & ASSOCIATES, Architects

AMOS PARRISH & COMPANY, INC., Designers





Overhang Section

DESIGNERS' COMMENTS:

"The site is one of a series of eight along Northern Boulevard which are set aside as a shopping center. . . . Future expansion of the building contemplates the addition of neighborhood features such as a tea room and lounge. . . . In the design we had the most complete freedom we've ever had, except for rigid merchandise requirements."

GANNETT HERWIG, Alfred Hopkins & Associates

"In order to achieve an integrated merchandising and selling operation, at the very outset a thorough analysis was made of the peak stock requirements by *items* in all classifications to be carried. . . . In addition, an analysis was made of the amount of goods that could reasonably be carried in reserve stockrooms adjacent to each department. . . . Wrapping and cash desks were so located that there would be complete control from all departments at all times. . . . Every effort was made to keep decorative features to an irreducible minimum, relying upon function to dictate form and make it much easier for the maintenance department to keep the store new-looking and exciting."

JAMES H. PICKERING, Amos Parrish & Company, Inc.

THREE STORES

Critique (continued)

In distinction to the complete, independent unit just studied, the following two specialty shops were both built within existing older buildings. Here the problem is more familiar and—in some respects—more difficult. Unwanted columns rear their immobile shafts in midstream, and stairways (serving other tenants) jut out from prominent corners. That a measure of good space organization, harmony, and architectural quality can result is a tribute to the trapeze-artistic facility as well as the skill of the designers. The total effect of the relation of the shop design to the building as a whole or of the building to the block cannot fairly be criticized severely; for, however important, these factors are usually beyond the province of the problem, let alone the budget. One must simply hope that such shops, progressive elements in themselves, may exert a contagious influence out into the community.

Roger Sturtevant Photos

2 BOOK STORE — SAN FRANCISCO, CALIFORNIA

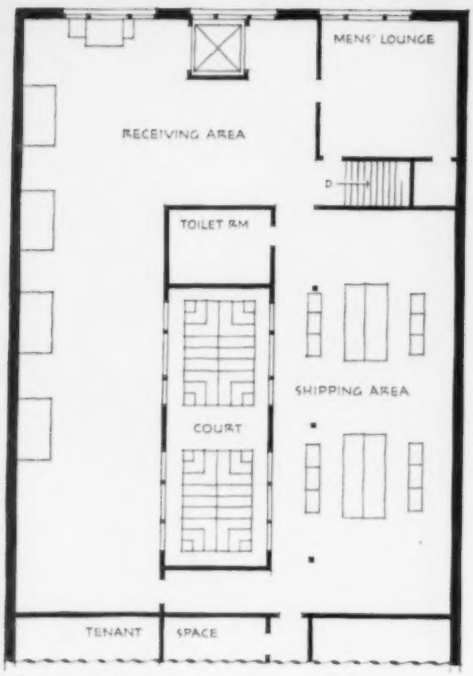
BOLTON WHITE, Architect

PROBLEM: To create a pleasant and efficient environment for stocking, display, and sale (emphasis on wholesale) of a complete line of current medical and technical books.

SITE: 40-foot width of basement and ground floor and full 60-foot width of second floor (half rented to another tenant); old building.

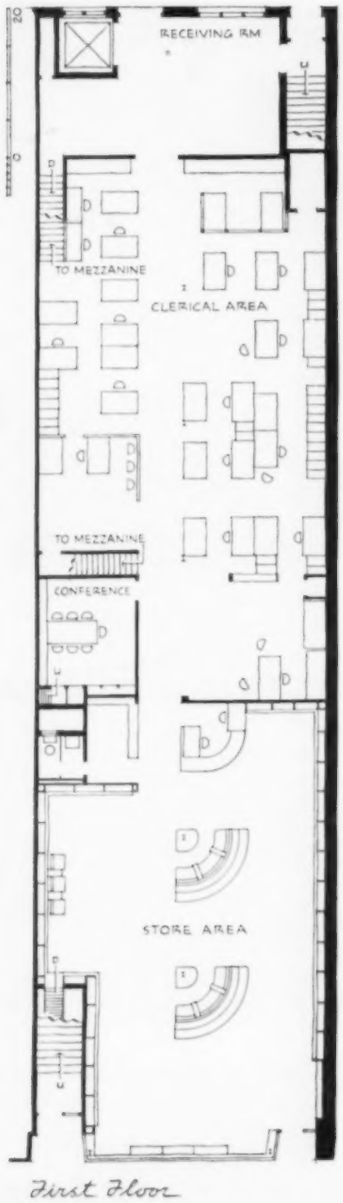
MAIN POINTS ADMIRED: Uncluttered design; provisions for browsers' comfort; display-shelving (see Selected Detail, page 65; skillful coping with intruding structural elements.

CHIEF POINT QUESTIONED: Efficiency of having stacks in basement, receiving dock on ground floor, and shipping room on second floor.



Second floor (REAR PORTION)

FRONT: Bulkhead, green terrazzo. Sign, aluminum rod, painted red, mounted against panel of corrugated aluminum; enframing bands are stucco.



First floor

2. BOOK STORE, SAN FRANCISCO, CALIFORNIA

BOLTON WHITE, Architect

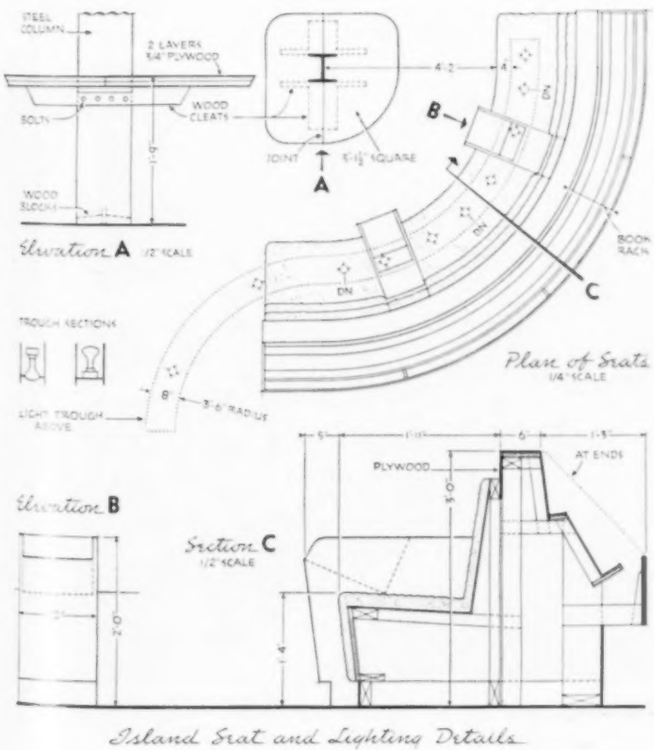
In reply to our question about the separated arrangement of receiving dock (main floor), stacks (basement), and shipping room (second floor), we learned that since the major portion of the business is wholesale, much of the activity is with retailers, authors, publishers, etc., who need to see various persons in the office; hence it was essential to have office space immediately adjoining the store proper. According to William L. Butler, Stacey president, "the only disadvantage in having the receiving and shipping rooms separated from stock rooms is a few seconds' additional ride on the elevator."

PLANS

The entire basement is stock space—14,000 square feet of it arranged in back-to-back rows of shelving 7 ft. high and 2 ft. wide. In the big ground-floor display-sales room, islands for browsers and S-shaped light fixtures are organized around the existing columns. The forward half of the second-floor space is leased to another tenant.

ENTRANCE: Line of sign continues as display case inside.

SALES AREA: Stripped steel columns, painted flat white outside, and deep salmon inside the "H." Existing heavy girder painted dark and further obscured by thin plane attached along bottom. Carpet is forest green; seating upholstered in light apple green.



Island Seat and Lighting Details

FRONT: Head line of windows carried back as plaster soffit with downlights and concealed lighting along inside edge.

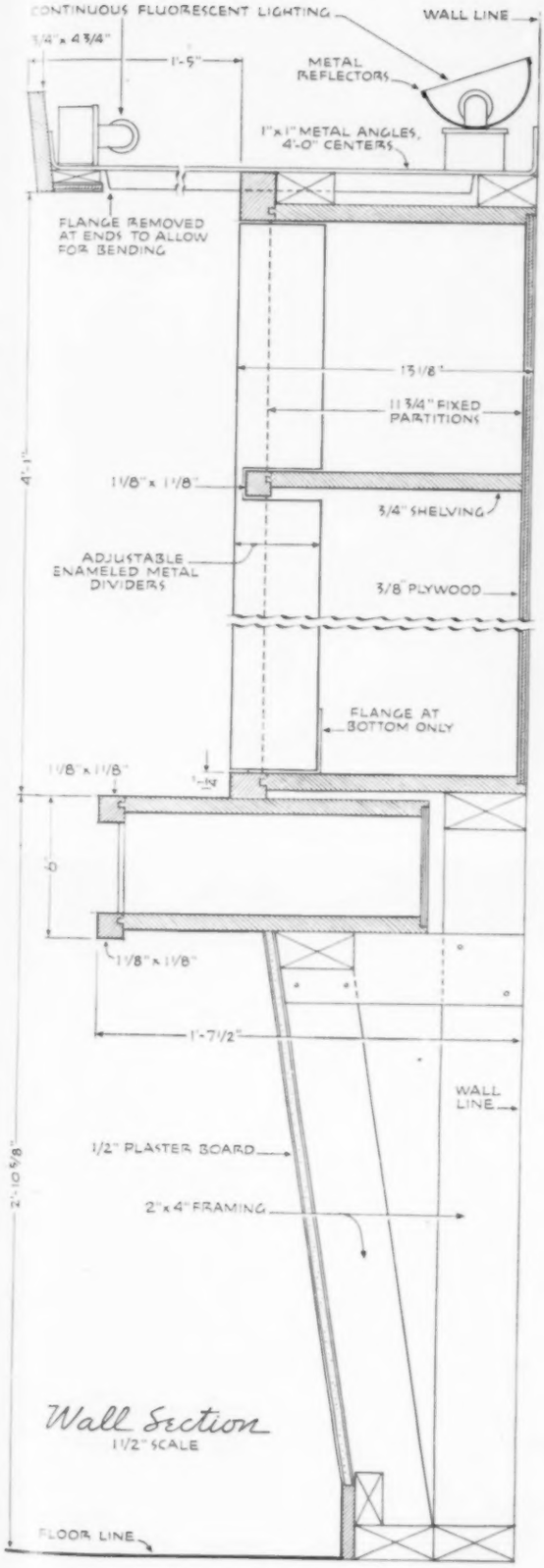
DISPLAY shelves contain one of every book in stock, arranged by subjects. Built-in lighting produces 50 foot-candles on shelves. General room illumination, about 20 foot-candles. The store is heated by warm air circulated from steam-heated transfer coils. Furniture frames are of natural birch. Shelf edges, light strip fascia, etc., painted off-white; interior of shelving and wood vertical divisions, a dark gray-green.

2. BOOK STORE, SAN FRANCISCO, CALIFORNIA

BOLTON WHITE, Architect

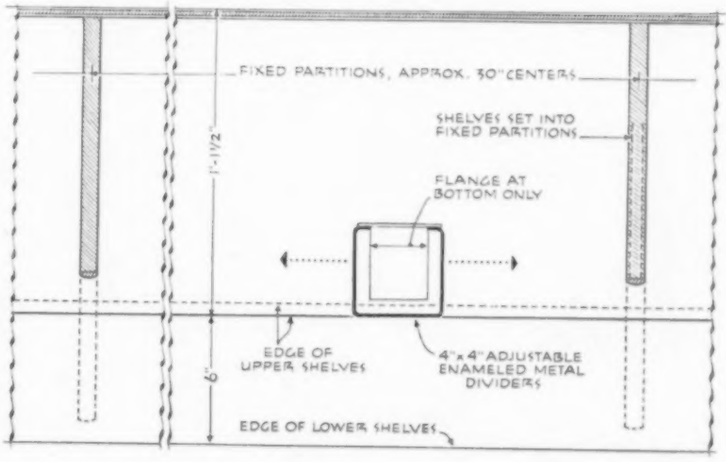
BOLTON WHITE received his architectural training (after graduation from Stanford U.) at Columbia, winning a Whitney Warren Scholarship at the American School of Fine Arts at Fontainebleau. Later receiving an M.S. degree at Columbia, he went on to teach at Stanford, worked as a designer in the office of Gardner A. Dailey in San Francisco, served with the Navy, in a civilian capacity, and started his private practice in San Francisco in 1946.

SHELVING: The vertical, movable ferro-enamel "subject strips" are medium gray-green, with white plaster lettering.



Wall Section
1 1/2" SCALE

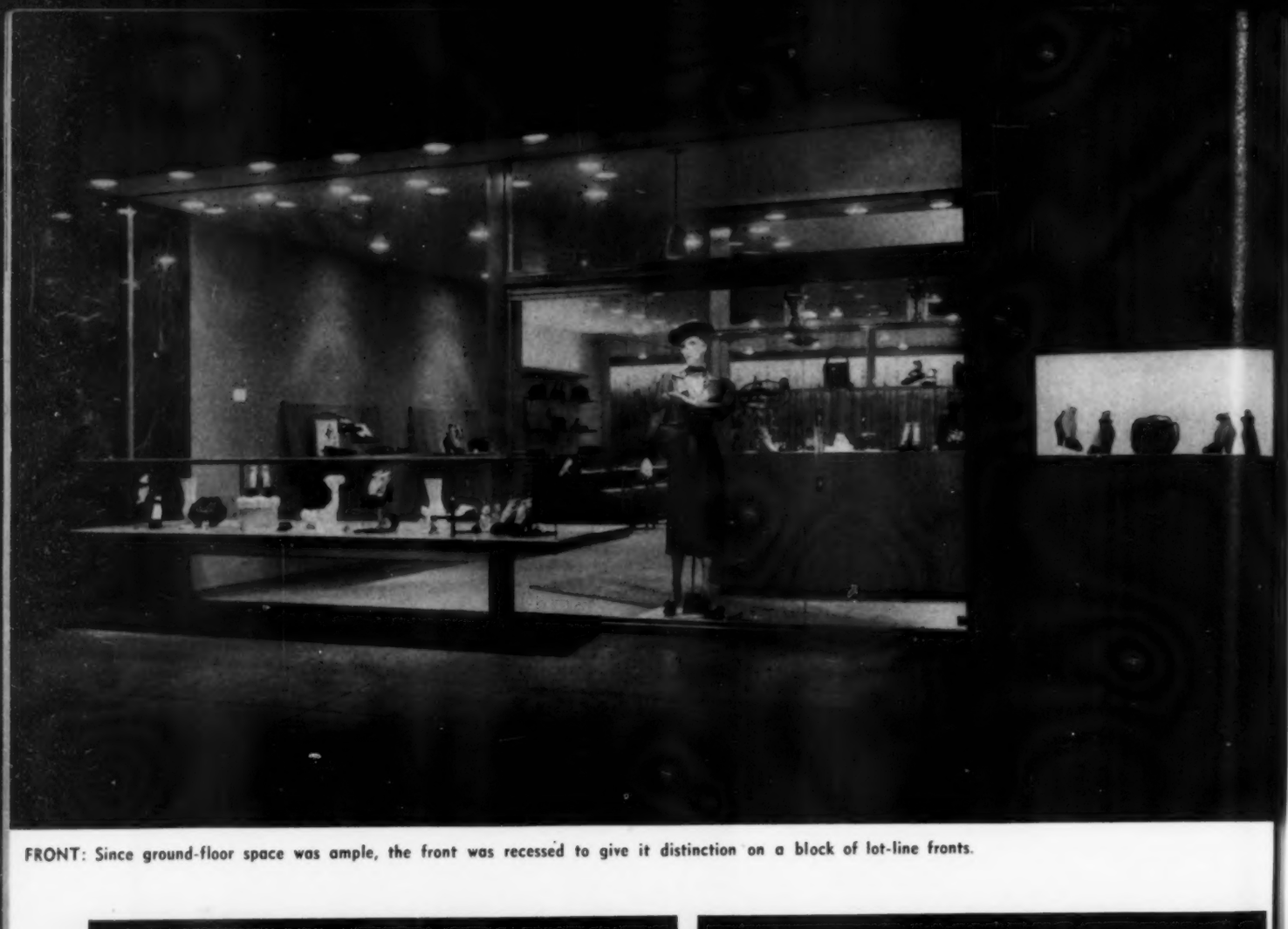
Plan through Shelving 1 1/2" SCALE


FIXED PARTITIONS, APPROX. 30" CENTERS
SHELVES SET INTO FIXED PARTITIONS
FLANGE AT BOTTOM ONLY
EDGE OF UPPER SHELVES
4" x 4" ADJUSTABLE ENAMELED METAL DIVIDERS
EDGE OF LOWER SHELVES

BOOK STORE

SAN FRANCISCO, CALIFORNIA

BOLTON WHITE
Architect



FRONT: Since ground-floor space was ample, the front was recessed to give it distinction on a block of lot-line fronts.

Richard Garrison, Photos

ENTRANCE: Display case—open front scheme, detailed on page 69. Just inside the door, a showcase forms a see-through vestibule.

3 SHOE STORE HARRISBURG, PENNSYLVANIA

CARSON & LUNDIN and WM. LYNCH MURRAY, Associated Architects

PROBLEM: To design an effective background for the display and sale of I. Miller shoes and supplementary lines of accessories.

SITE: Ground floor of existing two-story building.

MAIN POINTS ADMIRED: The store front, skillfully combining display case with open-front scheme; plan organization; integral design handling of such items as lighting, air diffusers, etc.

CHIEF POINTS QUESTIONED: Use of valuable up-front space as a handbag stockroom; whether a second door to the main stockroom might have improved efficiency; apparent lack of exterior design relation between new store and existing second floor.

A stockroom for the sizable handbag inventory was essential, the architects tell us, and placement front and to one side has three advantages: (a) it balances the heavy pier at the opposite side (stair to upstairs tenant's space); (b) it places stock exactly where wanted; and (c) by forming a forward area, it creates a desirable sense of separation for the shoe salon. As to the second door to the main stockroom, the width of the present door—5 ft—is quite ample, we are told; furthermore, a second door would have upset the seating arrangement and resulted in loss of needed stock space. The point about design relation to the second floor, we found, was captious. No funds were available for a total remodeling job. "Here," the architects comment, "we wished to lose the second floor and keep customers' interest on the shop."

Floor Plan

SHOE SALON: Ceiling-to-floor mirrors are set in a staggered arrangement, extending apparent space on both sides.

EXTERIOR marble frame (graining overemphasized in black-and-white picture) is a very deep green. The second floor is rented to another tenant; the design assignment began and ended with remodeling the ground floor.

CARSON

LUNDIN

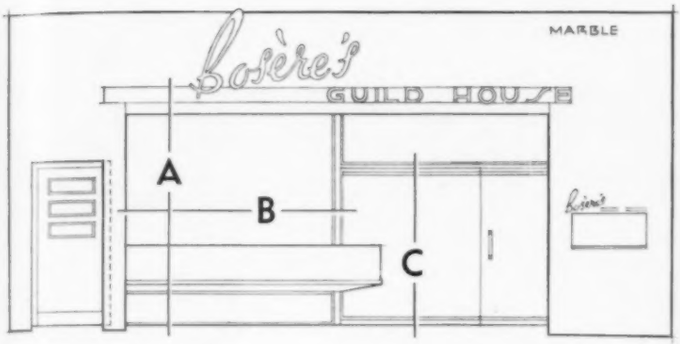
MURRAY

THE ARCHITECTS: **Robert Carson** (U. of Penn.), with Mr. Lundin, resident architect of Rockefeller Center, started career as designer for Raymond Hood. **Earl H. Lundin** (U. of Mich.), with Smith, Hinchman & Grylls in Detroit before joining Rockefeller Center office. Managing Architect, Rockefeller Center, Inc., since 1938. **Wm. Lynch Murray** (the firm is now Wm. Lynch Murray & Associates), an architect in Harrisburg for 20 years, received his architectural training at Harvard.

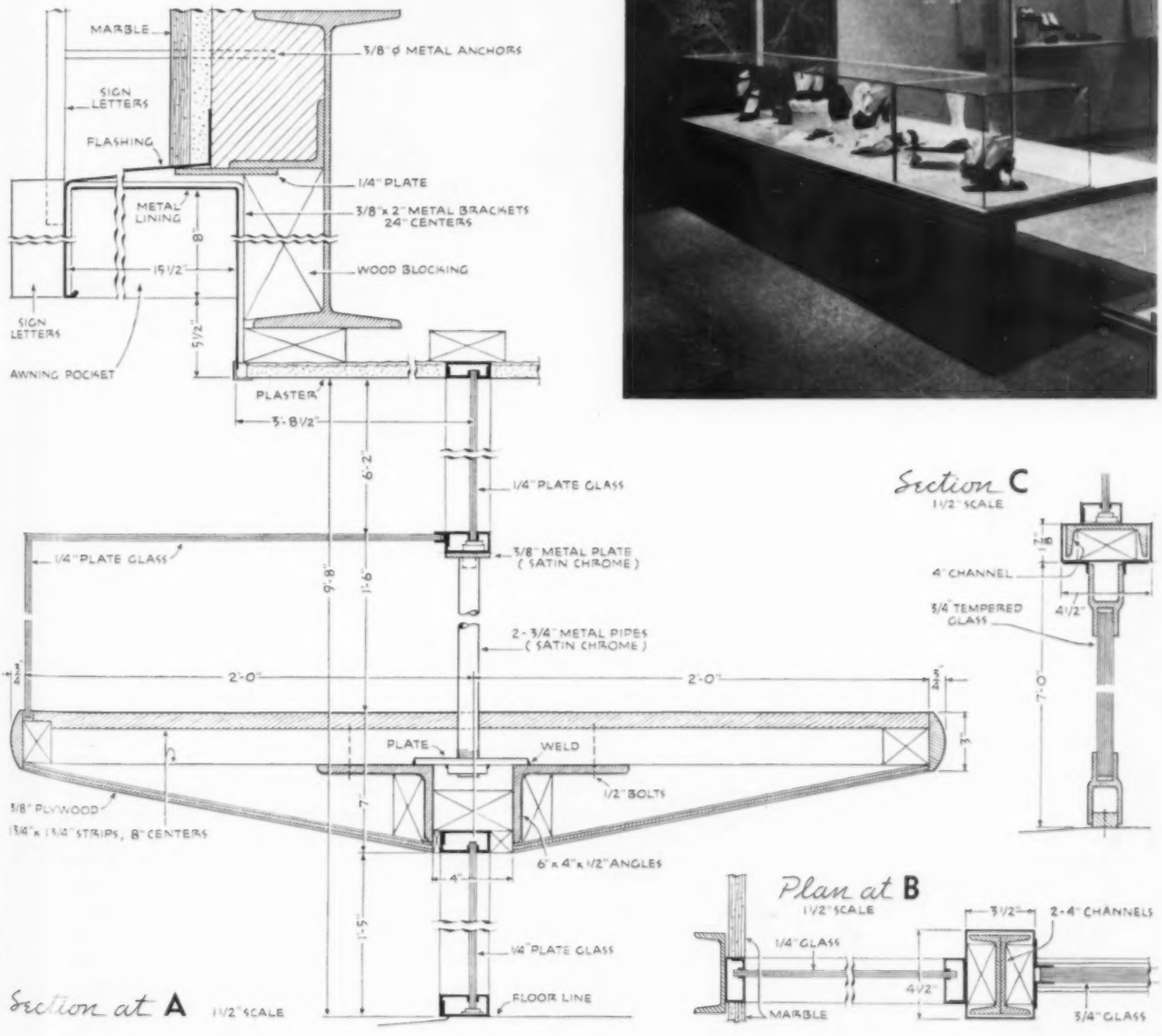
3. SHOE STORE, HARRISBURG, PENNSYLVANIA

CARSON & LUNDIN and WM. LYNCH MURRAY
Associated Architects

LOOKING TOWARD FRONT: Carpet and walls, gray; wall hangings, gray-pink, with deep gray and red design; sofa upholstered in green.



Front Elevation 1/8" SCALE



Section at A 1 1/2" SCALE

Section C
1 1/2" SCALE

Plan at B
1 1/2" SCALE

SHOE STORE

HARRISBURG, PENNSYLVANIA

CARSON & LUNDIN and WM. LYNCH MURRAY
Associated Architects

Photos courtesy Otis Elevator Co.

Fire Safety for MOVING STAIRWAYS

The Escalators shown above, in the Kresge Department Store, Newark, N. J., are not only the most improved type manufactured by Otis; they are also the first to be protected against fire by a new combination of automatic control devices applied to rolling metal enclosures. The entire enclosure assembly and control system are manufactured and installed by the J. G. Wilson Corp., of New York, N. Y., who cooperate in such installations with the stairway manufacturer.

Findings in recent disastrous fires indicate that open wells, which act as flues not only for smoke and flame but also for deadly gases generated by fire, have to be dealt with carefully in planning for fire safety. There has been talk of requiring the wells of moving stairways to be fully enclosed. On the other hand, open wells in department stores are considered extremely important from the merchandising point of view; the store owner cannot afford to enclose the wells.

The use of a rolling metal curtain to seal off the top of each run of a moving stairway is not new; there have been several installations of manually or electrically powered shutters. What is new in the Kresge installation is the provision of automatic controls: either an accumulation of smoke sufficient to interrupt a beam of light which impinges on a photoelectric cell, or a rise in temperature sufficient to activate a thermal device, causes these shutters to close automatically. If these controls fail, the shutters may be closed electrically by means of the switches visible on

the face of the column at the right of the Escalators shown at left. And if there is a complete electrical failure, there is a hand crank in the side of the Escalator housing for manual closing.

The design of electric-power operated, rolling metal curtain enclosures for moving stairways involves a series of requirements which normally are not encountered when these enclosures are hand-operated. The only operating requirement of a hand-operated enclosure is that it be readily closed by means of a hand crank or pull chain in the event of fire and that in so doing an electric cutout switch is tripped causing the moving stairway to stop. The closing of the curtain, however, requires the designation of an individual to that duty in case of fire or for the nightly closing as is usually required by the authorities.

Automatic power operation eliminates the need for the above and provides greater safety in the instant operation of the detector device. Since the power-operated enclosures are designed to be entirely automatic in operation, a number of safety features and control interlocks must be included in the design of the control so that new hazards are not created with the incorporation of automatic power operation.

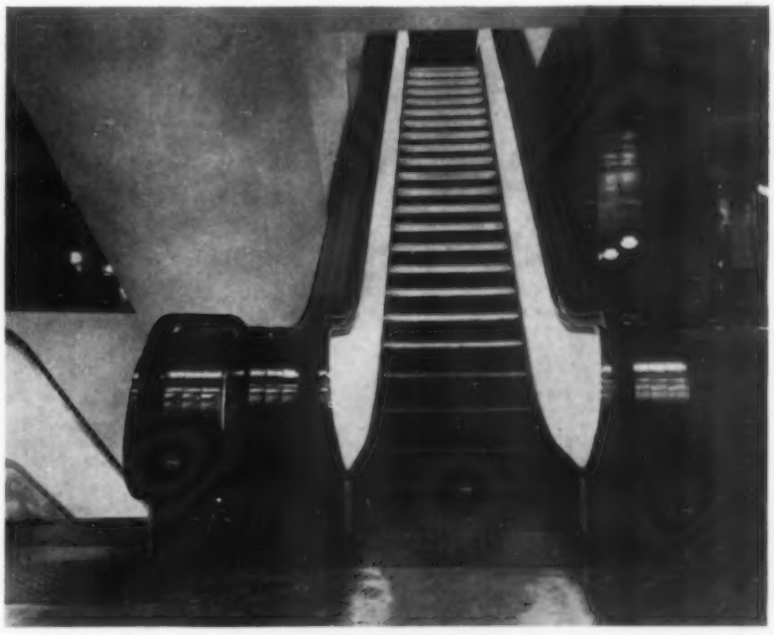
The usual type of normally open fire cutoff on a vertical wall opening, as approved by the National Board of Fire Underwriters, incorporates a fusible link which in case of fire permits the gravity closing of the curtain or door. On a stair opening where the closure is normally open and the travel of the curtain is mostly horizontal, gravity closing cannot be employed, and when automatic power operation or closing is required, the control must simulate the effect obtained by the fusible link and gravity closing.

The first item of control, therefore, is a smoke or fire detector switch which will operate a magnetic contactor, this contactor in turn starting the motor operation in the closing direction. Provision is also made through a three-button remote master switch to (a) start the curtain closing, (b) start the curtain opening, (c) stop the curtain travel at any point. The introduction of the remote push-button control necessitates the inclusion of a geared limit switch cutout at the end of either travel cycle. Safety to the users of the moving stairway dictated the inclusion of a safety cutout switch on the moving edge of the curtain to prevent injury to persons on the moving stairway. This was accomplished by the use of a pivoted safety bar on the moving edge of the curtain, which, through a very light pressure against it, would operate an electric cutout switch, thereby instantly stopping the curtain travel. Since this switch is mounted on the moving edge of the curtain, it must be connected to the control through a flexible cable winding on a spring take-up reel.

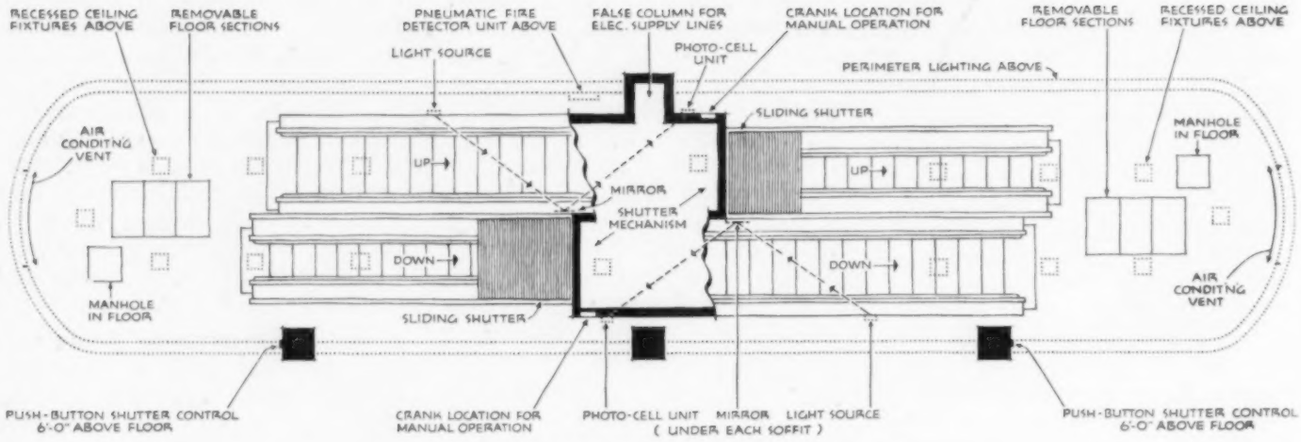
The inclusion of this safety feature together with the remote master switch control then required an auxiliary maintaining circuit in the control so that, although the closing travel of the curtain could be momentarily interrupted by human obstruction on the moving stairway, closing travel would be resumed automatically as soon as the travel path of the curtain was cleared. It also provided for automatic reversal of the curtain travel from opening to closing in the event that the fire switch tripped after the curtain had been started in the opening direction by the remote master switch. A further use of the auxiliary maintaining circuit was to prevent stopping the curtain travel in the closing direction through the remote master stop button once it had been actuated by the fire switches.

As in the case of the original hand-operated closures, an electric cutout is provided to the moving stairway drive so that the start of the curtain in the closing direction also provides for stopping the moving stairway.

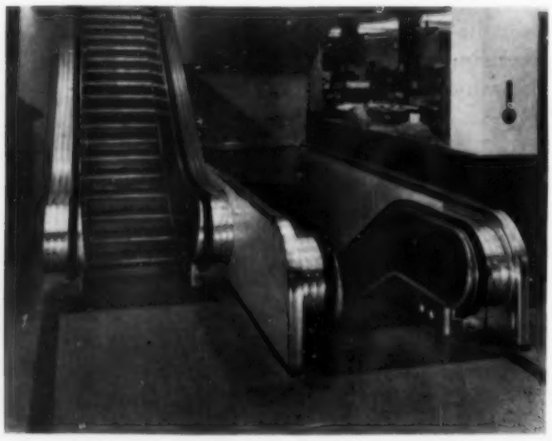
The control is designed so that the entire arrangement is composed of standard unit assemblies, such as magnetic reversing starters, switches, and operating stations, which are available from a number of electric control manufacturers without need for special electrical apparatus of any kind. (Continued over-page)



ANOTHER NEW DEVELOPMENT in this field is the illuminated balustrade applied by Otis to the Escalators recently installed in a Dayton, Ohio, department store. The entire interior paneling of the balustrade consists of frosted tempered glass, lighted from behind by cold cathode tubing. This installation was designed by Eleanor Le Maire as an improvement on the usual overhead lighting.



TYPICAL PLAN shows location of smoke and fire detectors as well as incandescent downlights and fluorescent perimeter lighting. To accommodate all the wiring for controls, lighting, etc., a false column was constructed at one side of the Escalator bank on all floors.



THESE TWO VIEWS show the galvanized steel rolling shutters open and closed. Note the manual push-button motor controls on the column at the right.

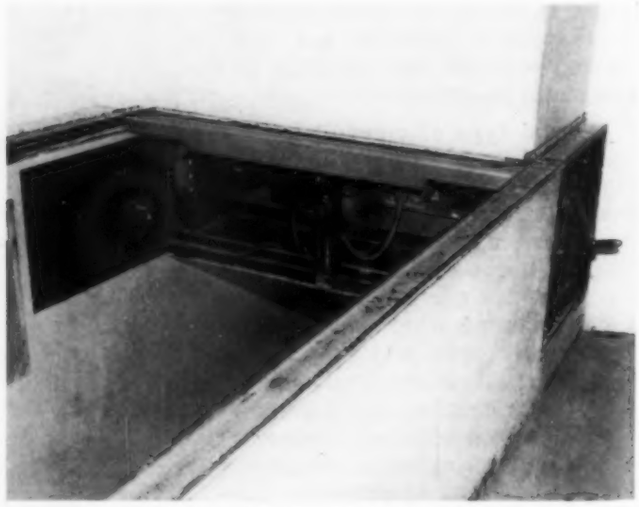


PHOTO TAKEN DURING INSTALLATION shows the small recess into which the shutter rolls. Controls and motors are housed in the same recess. Hand crank at right is for use in case of complete power failure.

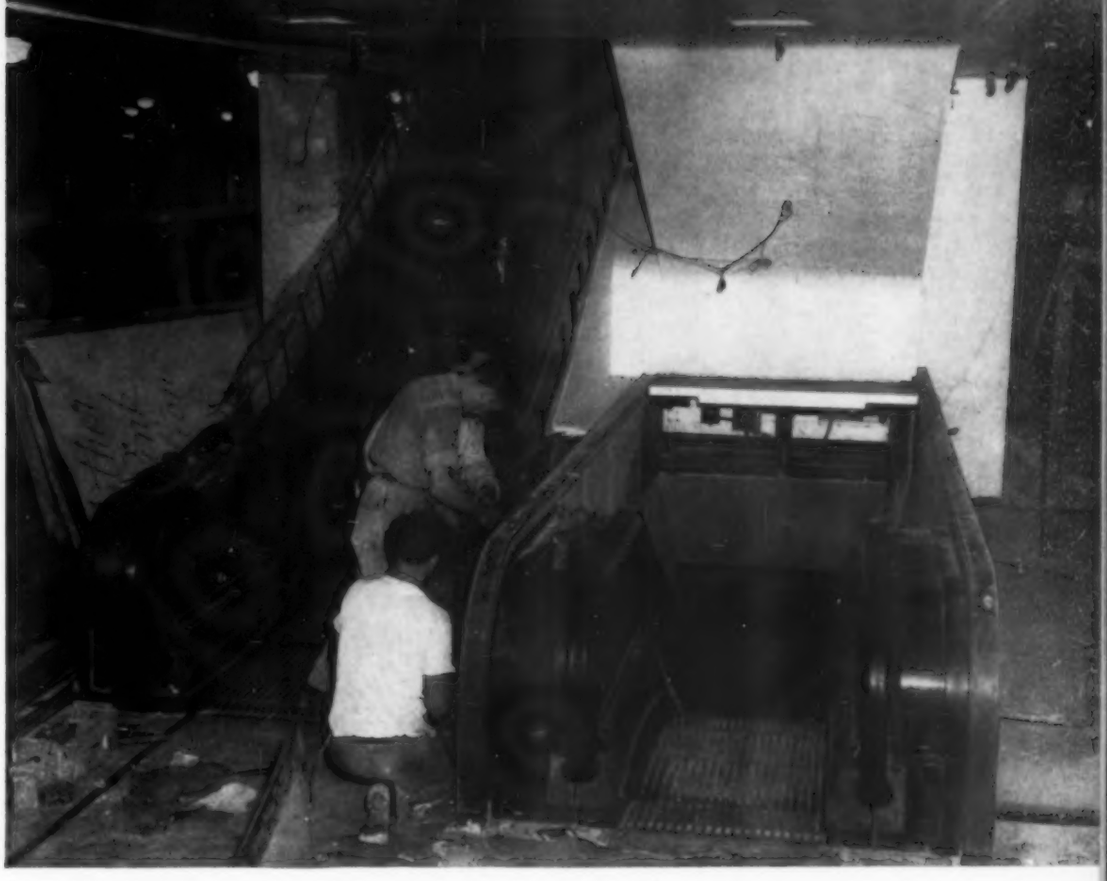
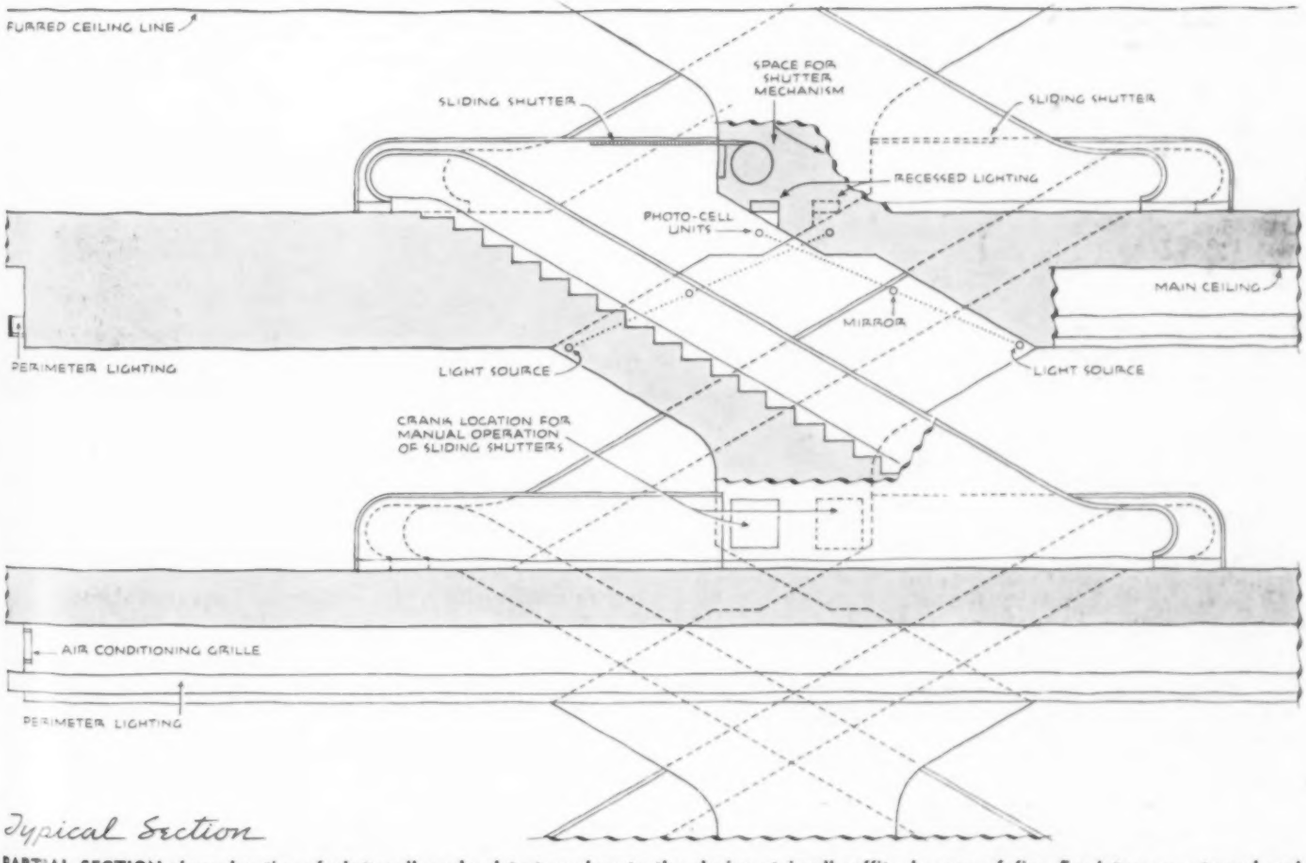
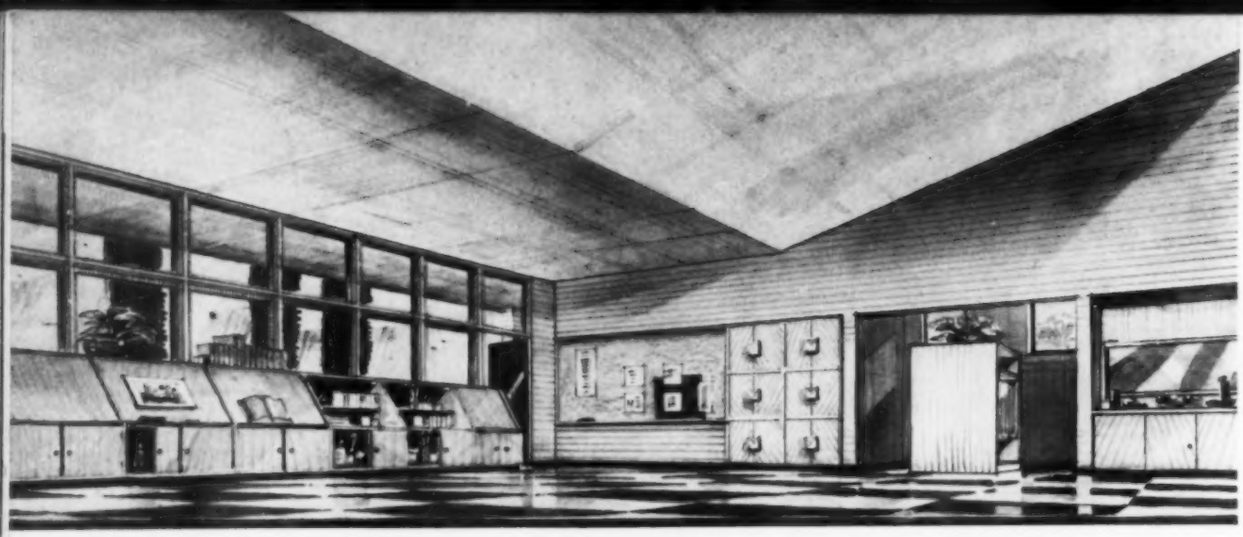


PHOTO TAKEN DURING INSTALLATION on an upper floor in the same store shows application of the automatically-operated enclosures to existing Escalators.

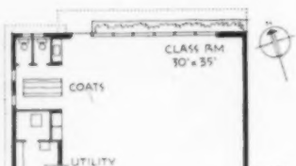


Typical Section

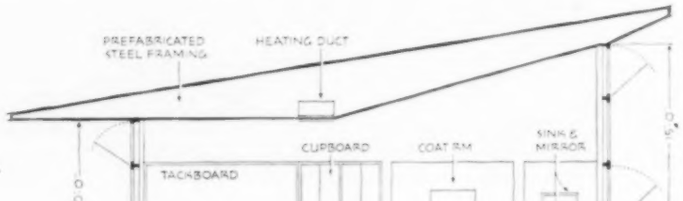
PARTIAL SECTION shows location of photo-cell smoke detectors close to the sloping stairwell soffit. In case of fire, Escalators are stopped and galvanized steel shutters automatically close the openings. In addition to the photo-cell units there are thermostatic elements to detect excessive temperatures and close the shutters, and manual push-button controls and hand cranks.



1 LIBERTY SCHOOL, AGOURA, CALIF. RALPH C. FLEWELLING & ASSOC., Architects



PLAN shows the single classroom addition to a small rural school.



SECTION shows how desire to utilize natural light fully and correctly can control shape of room. Sloping ceiling is intended to reflect light evenly over seating area from large north window. Note wide overhang shading south windows.

TWO CLASSROOM TYPES **Designed to Utilize Natu**

In these two classroom plans, from widely separated parts of the country and differing almost as widely in concept, we see the impact of research upon architectural design. Other experimenters are at work, notably Kenneth C. Welch in Detroit, Michigan, and Henry L. Blatner in Albany, New York. Much of the current interest in this type of design grows from the research of Dr. Darrell B. Harmon in Austin, Texas, whose studies have been widely published though they have hardly reached a state of completion sufficient to make precise evaluation and recommendations a possibility. Both the classroom types here presented must have been influenced by Harmon's work, though possibly not directly; at least not in the Lowell School, whose architects tell us that they were *not* influenced by his research. But some of their information undoubtedly came from the glass block manufacturer, who has had the foresight to try to develop ways to use his product in accord with findings of independent research.

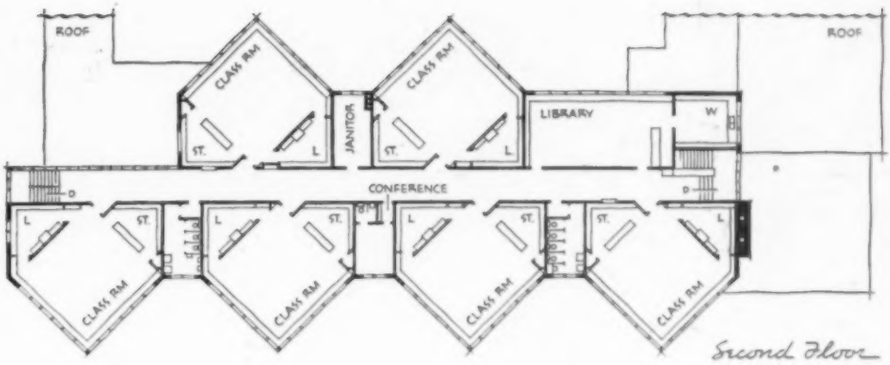
The Liberty School addition shows rather complete integration of curricular requirements, structure, heating, ventilating, and lighting. Inclusion of toilet rooms as well as coatroom within the classroom unit is intended to give the teacher better control over the pupils. The 30-ft-square room lends itself well to flexible seating arrangements. Structurally, the addition consists of reinforced concrete block walls, concrete slab floor, and roof framing of prefabricated lightweight steel trusses or joists. None of these materials is unusual; however, turning the trusses upside down provides a sloping reflecting surface for light from the tall north windows, and placing them slightly off center provides an 8-ft overhang which not only shades the south windows but also affords shelter for the outdoor corridor along this wall. Heating and ventilating ductwork is carried through the open roof truss panels from the heater room to diffusing outlets in the ceiling.

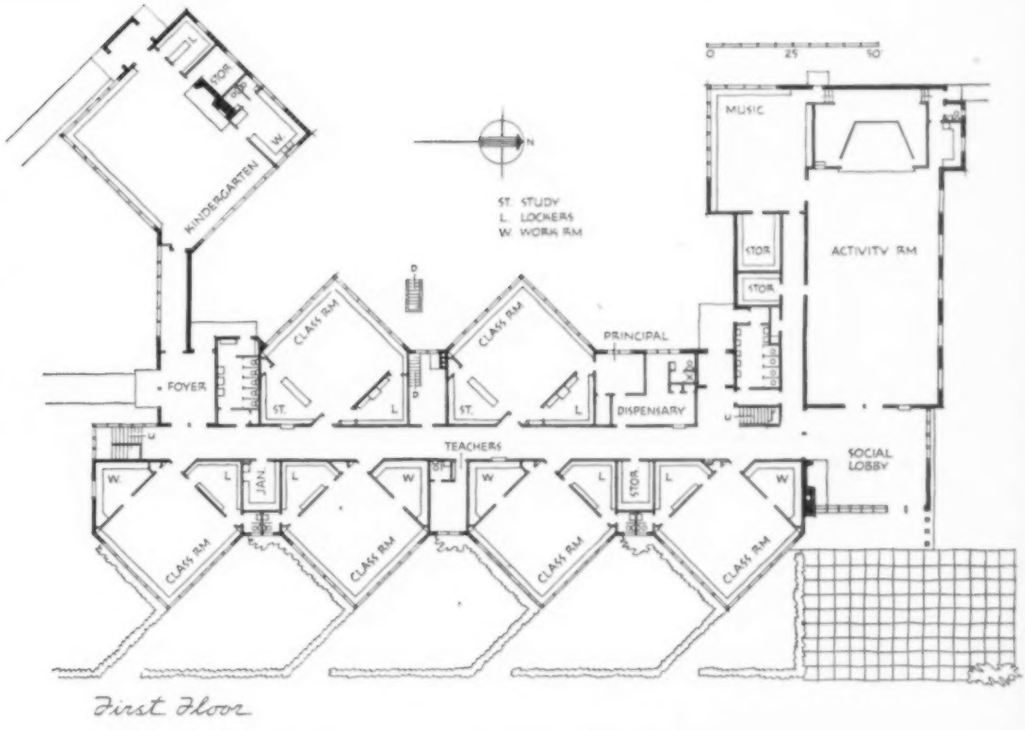
In the Lowell School, the lighting and teaching advantages anticipated depend entirely upon satisfactory performance of light-directing glass block used in upper portions of exterior walls. The

2

LOWELL SCHOOL
SALINA, KANSAS

CHARLES W. &
JOHN A. SHAVER
Architects



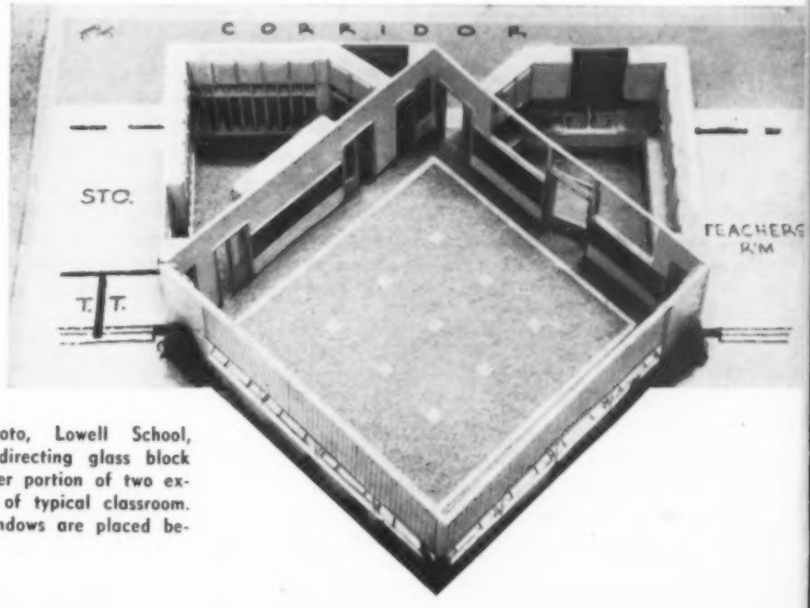


PLAN of Lowell School—an entire building—shows effect of full employment of light-directing glass block. Rooms were placed diagonally to obtain better quality of light and lower brightness ratios than unilateral lighting would afford. They were made square for flexibility in seating, for informality, and other teaching advantages. Diagonally placed classrooms permit inclusion of locker room, workroom, or study alcove (and, for lower grades, a toilet) in each class unit, with the interior workrooms receiving borrowed natural light. Ceiling height is low (9'-8"), for intimacy and appropriateness to children's size.

Natural Light Fully

architects believe that not only does the low ceiling obviate monumentality in the design; it also is expected to reduce total cubage enough to compensate for any extra costs due to the "sawtooth" exterior walls.

In plan, workroom, locker room, and, in lower grades, toilets, are included in the classroom unit. Structure is a combination of bearing walls and steel frame; finish materials and colors are to be selected for their domestic qualities as well as sparkle and brightness. Equipment is to include recessed, louvered fluorescent lighting, with fixtures near interior walls controlled by separate switches to permit a uniform light level whatever the intensity of natural light.



MODEL photo, Lowell School, shows light-directing glass block used in upper portion of two exposed walls of typical classroom. Operable windows are placed below.

Photos courtesy Surface Combustion Corp.

WARM AIR RADIANT HEATING . . .

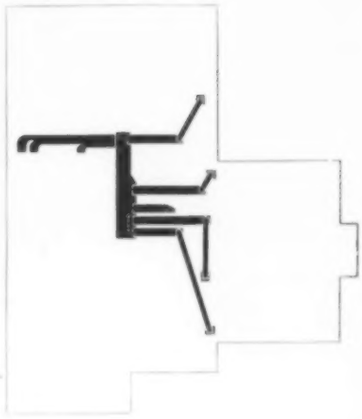
PROGRESSIVE ARCHITECTURE here presents another case study of a warm air radiant floor heating system. Last month's issue contained a presentation of a similarly heated single house at Liverpool, New York, for which Sargent-Webster-Crenshaw & Folley were architects. In that case, the architects employed metal decking to form the air ducts because metal heats and cools rapidly and the heating lag experienced in some installations might thereby be reduced. Because the decking carried the floor loads, only a thin topping layer of concrete was applied over it. Of this Liverpool house, the architects stated that they believed the cost of the heating system to be excessive; all their radiant installations, they said, had cost too much.

Since that issue went to press the Editors have discussed the cost problem with another architect in upstate New York who has had some experience with radiant heating. This man could not agree that radiant heating, per se, is too expensive. In the case of the Kew Gardens development presented here, the Editors do not have exact cost data; but it is hardly conceivable that a reliable and successful firm such as Taft & Blackman, developers and builders of Kew Gardens, or C. G. Blackman, heating contractor on the project, would even consider for a development of this size a type of heating system which would be excessively expensive to install. The Editors have been informed that experience at Kew Gardens to date indicates that the particular method used there offers reductions in both construction and operating costs.

Kew Gardens, at Berea, Ohio, is eventually to consist of over 300 houses, and is scheduled for completion within the next two years. At present more than 45 houses have been finished; several have been occupied for well over a year, including the winter of 1946-47 during which their floor heating was thoroughly tested.

As the plans show, these are one-floor houses without basements, and have three bedrooms, living room, bath, and combination kitchen-utility room in which the

PHOTOS show, across-page, general view of Kew Gardens subdivision, Berea, Ohio; Mellenbrook, Foley & Scott, architects. Above, one of the variations in facade obtained through ingenious use of two standard plan types. PLAN AT RIGHT shows arrangement of ducts in attic space.



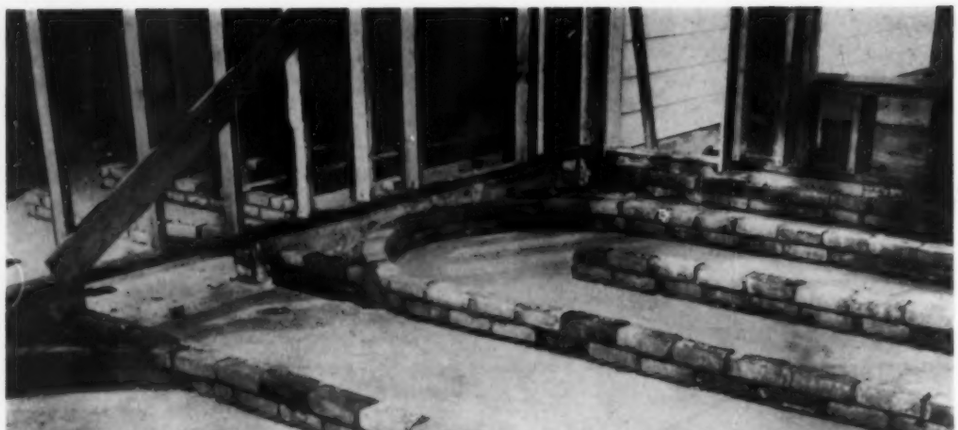
in a Subdivision

water heater and furnace are located. Heated air is distributed overhead, through ducts laid between the attic joists, to vertical stacks that carry it down to passages in the double-slab concrete floor. Since the heating system is so intimately tied into design and construction of the houses, the architects, Mellenbrook, Foley & Scott, deserve much credit for its development.

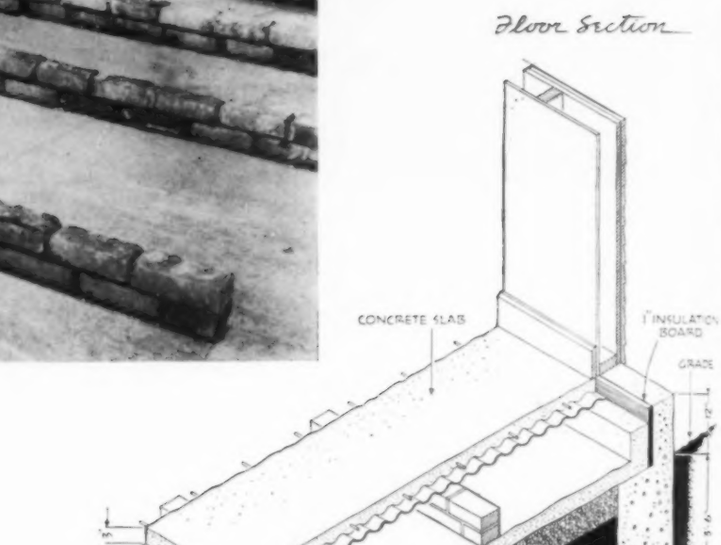
Above the floor the houses are of conventional frame construction. The unusual floor consists of two slabs, each 3″ thick, separated by a 5½″ air space through which the warmed air travels. The top slab is supported on brick withes which also separate the air passages. Note that the passages all have corners rounded to a long radius where they change direction; this was done to minimize resistance to air flow. Thickness, depth, and board insulation of the foundation walls from the floor slabs are all designed to reduce

GROUND FLOOR PLAN showing forced warm air heater located in combination utility room and kitchen; also, stacks which carry warmed air down from attic to underfloor heating panels.

SUBFLOOR PLAN showing arrangement of air passages, which are separated by brickwork. Floor construction consists of two concrete slabs with the air passages between. This is shown in detail on the following page.



FLOOR CONSTRUCTION, showing the two thin concrete slabs with air passages between. Corrugated steel used to support the top slab during pouring remains in place in the finished construction.

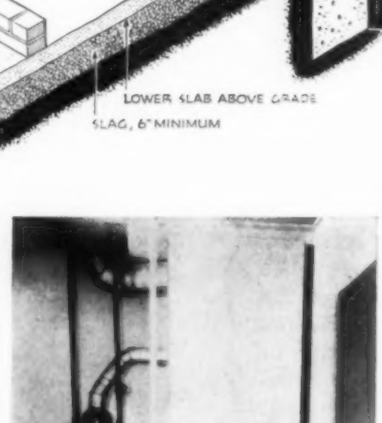


WARM AIR RADIANT HEATING

lateral heat losses to the earth and the outdoor atmosphere. In addition, much heat absorbed by the ground beneath the floor can be returned to the floor ducts during periods when the heater is not operating; and, since the two floor slabs are separated by an almost continuous air space, the possibility of moisture penetration from beneath, as well as floor condensation, is minimized. Since there is little that can go wrong with the part of the installation built into the floor, maintenance problems on this score are not anticipated.

In constructing the floor, corrugated steel sheets are laid directly on the brick withes which separate the air passages; reinforcing steel is then placed and the top slab poured. Thickness of the top slab is limited to the minimum required structurally—3"—in order to permit relatively quick heating and cooling in response to demand. During the occupancy of several of the houses (by members of the builders' families and others) desired room temperatures were maintained by this system without need for any auxiliary convected heat.

The system operates on warmed air from a Janitrol unit at 85F, plus or minus 5F, which maintains a design room temperature of 70F. The total static resistance equals 25 in. of water pressure; against this, 1050 cfm of warmed air is supplied. This requirement is based on a total building heat loss of 43,000 Btu per hr at zero outside temperature.



ARRANGEMENT OF WATER HEATER AND FURNACE in utility room, showing plenum that carries warm air to the attic duct system. Furnace is a Surface Combustion Janitrol Series FAC-105 gas-fired "winter air conditioner."

Manufacturers' Literature

★ *Editors' Note: Items starred are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.*

Air and Temperature Control

1-134. *The Van-Packer Chimney*, 5-p. illus. folder on a lightweight, sectional, precast chimney shipped ready to install; can be hung from floor or ceiling, eliminating foundations. Underwriter-approved for all fuels. For 1- and 2-story houses. Van-Packer Corp.

1-143. *Breidert Air-X-Hauster*, G. C. Breidert Co. Reviewed December.

1-144. *Type C Worm-Feed Stokers, AIA 30 C-1 (Bul. S-70—2nd Edition)*, Brownell Co. Reviewed December.

1-145. *The New Bryant Hevigage Steel Heat Exchanger (SA-3388)*, Bryant Heater Co. Reviewed December.

1-146. *Rheem, Floor Furnace Series 1600, AIA 30-B-1 (RA-75)*, 8-p. illus. booklet on floor furnaces for various heating needs: flat register, dual wall, and space-saver models for use with any type of gas. Descriptions. Illustration of types and particular uses. Output and dimension table. Installation data; also other appliance products and tank charts. Rheem Mfg. Corp.

1-147. *Trane Heating Products*, 8-p. illus. booklet on heating coils; convector radiators; Torridors (for blower type unit heaters), projection heaters, valves, caps, etc. Description; types; uses; operation and construction details. Trane Co.

1-148. *Kewanee Power Boilers*, 15-p. illus. booklet on operation and care of high pressure Kewanee power boilers. General rules. Construction details; instructions for putting new boiler in service. Maintaining data: water levels; prevention and remedy of foaming; scales; oils; corrosion; blow backs; leaks. Complete data on hand firing, reservicing. Kewanee Boiler Corp.

1-149. *Modine Convector Radiation, (Bul. 247, Form 015847)*, 22-p. illus. booklet on convector radiation for residential, commercial, and institutional buildings. Advantages. Illustrations of typical installation. Enclosure feature in detail and sectional drawings. Dimension tables; construction and installation data; location; steam capacity table; specifications. Modine Mfg. Co.

1-151. *Jacketed "K" Oil or Stoker Boiler (Cat. 47-K)*, 11-p. illus. catalog on a boiler with a noncorrosive metal coil, furnishing year-round hot water for the small house. Description; advantages; features. Details of construction and operation; installation data. Dimensional drawing; capacity, and dimension table. Spencer Heater, Div. Avco Mfg. Corp.

1-153. *The New Viking Series V Blower Assembly (Form M-304)*, Viking Air Conditioning Corp. Reviewed January.

19-182. *Leigh Building Products (Cat. 47-L)*, Air Control Products, Inc. Reviewed December.

1-155. *Exidust (Bul. F-4 3-47MC)*, 6-p. illus. bulletin on a series of light, medium, and heavy duty portable vacuum cleaners for plants, institutions, buildings, etc. Specifications of various types. Applications; operation data; cleaning tools and accessories. Lamson Corp., Allen Billmyre Div.

Doors and Windows

4-112. *NuEra Double Hung Aluminum Window*, NuEra Window Co. Reviewed December.

4-115. *Bedroom Windows (Re-9)*, 8-p. (6" x 4") brochure on an in-tilting vent for bedroom windows. Advantages; features; details of construction. Chart illustrating types and sizes available. Detroit Steel Products Co.

4-117. *Builders' Cabinet and Sliding Door Hardware*, Knape & Vogt Mfg. Co. Reviewed January.

4-118. *Har-vey Rolling Hardware, AIA 27-A*, 8-p. illus. booklet on door tracks (single and double), hanger rollers, guides, and plates for rolling doors. Installation data and drawings. Descriptions; advantages; specifications. Metal Products Corp.

★ **4-119.** *Herculite Door-Frame Assembly (G 61387-8-47)*, 7-p. illus. booklet on a factory-assembled door frame which comes ready to install into rough opening of building. Description of installation and construction. Sectional drawings of 12 standard styles. Variable dimensions. Pittsburgh Plate Glass Co.

Electrical Equipment and Lighting

★ **5-107.** *Q-Floor Wiring, Data Manual, AIA 31-C-62 (18-136)*, 106-p. illus. manual on Q-flooring, a cellular steel flooring series of raceways for electrical wiring. Description of seven basic types and application. Q-floor wiring method; use. Distribution fittings data. Various accessories, fittings, tools, compounds, and tapes. Description and applications. Layout details; specifications. 40 pages of dimensional drawings. Installation data. General Electric Co.

5-108. *How to Figure a "Cut-in-the-Field" "Plug-in" Strip Job*, 10-p. loose-leaf booklet on estimating and procedure in installing "plug-in" and "cut-in-field" strip jobs. Fittings required for ordinary installation job. Lopo-Trim installation. Seven pages of diagrams illustrating installation steps for various size bedrooms and living rooms. National Electric Products Corp.

5-109. *National Electric Plug-in Strip, AIA 31 C 71 (Cat. CF-2, Form 554)*, National Electric Products Corp. Reviewed January.

Finishers and Protectors

6-108. *Alodine (Form 586, Technical Data Sheet 7-16-100)*, 4-p. illus. folder on an aluminum protector which provides high corrosion resistance and anchors paint. Pictorial illustrations of effect of application. Explanation of "rinse" and "hot-dry" processes. Data; tables; details. American Chemical Paint Co.

6-109. *Douglas Fir Plywood (Form 41-10)*, 4-p. illus. folder on plywood as a wall baseboard for interior and exterior use. Application; advantages; characteristics. Data on possible finishers and method of application. Details. Douglas Fir Plywood Assn.

★ **6-111.** *Painting Specifications, AIA 25*, 32-p. periodical on standard painting specifications approved by Painting & Decorating Contractors of America. Preparatory data. Surface conditions; materials; workmanship; arbitration of disputes; payments; etc. Methods of interior and exterior application. Use of ready mixed, lead, oil, and resin oil emulsion paints; also stain and varnish on various types of surfaces. Application of finishers and refinishing of previously coated surfaces. Supplement on woods used for interiors; description; characteristics; uses. Code of ethics. (Price $1.00 per copy; make check or money order payable to Painting & Decorating Contractors of America.) Painting & Decorating Contractors of America.

6-112. *Aquella*, 6-p. booklet on a decorative surfacer for the control of water seepage and dampness in interior and exterior porous masonry surfaces. Illustrated explanation of principle. Test results. Details of application. Specifications on dampproofing and waterproofing work under various conditions. Uses. Prima Products, Inc.

★ **6-113.** *Para-Stone Tex (Bul. 684)*, 4-p. illus. brochure on a coating said to be resistant to the alkali in masonry, concrete, stucco, and asbestos cement. Also resistant to moisture, sunlight, fumes, and vapors. Advantages; application; features; colors; details. Truscon Laboratories, Div. of Devoe & Raynolds Co.

Insulation (Thermal, Acoustic)

Two 4-p. folders on insulation boards for use as roof decks and finishing material in attics, basements, offices, farm buildings, etc. Characteristics; thermal conductivity; method of application. Illustrations of typical installation; details. Armstrong Cork Co.:
9-84. *Temlok Insulating Board.*
9-85. *Temlok Roof Insulation.*

9-86. *Acousti-Booths (170)*, Burgess-Manning Co. Reviewed January.

9-89. *Zonolite, Insulating Concrete (Form CA-5)*, 4-p. illus. folder on a concrete which, when poured over wire mesh, ribbed metal, etc., provides protection against fire and weather. Preparation; advantages; typical installations. Description, reinforcement, and forms; construction; surfacing; design data. Quantity table. Specifications. Universal Zonolite Insulation Co.

Load-Bearing Structural Materials

12-140. *Truscon Weltrus Steel Poles (N-60 5M 7-47)*, 6-p. illus. folder on steel poles used chiefly for power transmission lines, etc. Construction details. Fittings and anchor bolt foundation

Manufacturers' Literature

data. Dimensions, properties, and characteristics tables. Comparison between single and double pole capacity. Truscon Steel Co., Subsidiary of Republic Steel Corp.

★ **12-142.** *Fletcher Standard Granite Sections, AIA 8-B-3*, 8-p. bulletin on standardized granite units. History of dimensional coordination in granite masonry. Standard Nine Square Granite Units system explained. Table and data on available sizes. Freedom of size selection within framework; possible applications. Gang and rotary saw finishes. Specifications. H. E. Fletcher Co.

Non-Load-Bearing Structural Materials

14-50. *Natcor Extruded Metal Store Fronts*, Natcor. Reviewed December.

14-51. *Decorative Glass*, Harriton Carved Glass. Reviewed January.

14-52. *Magnalite, AIA 26A 526*, 4-p. illus. folder on a series of diffusing glass for decorative and functional use. Illustration of typical installations. Description of different types. Dimension tables; details. J. Merrill Richards.

14-53. *Corrugated and Patterned Plexiglas*, 4-p. illus. brochure on Plexiglas in a variety of patterned surfaces for decorative and utilitarian use. Illustrations. Details of manufacture. Advantages; use. Rohm & Haas Co.

Sanitary Equipment, Water Supply, and Drainage

19-184. *The Huntington Dispenser*, Huntington Laboratories, Inc. Reviewed December.

19-191. *Aloyco Valves & Fittings (Cat. 47)*, 54-p. catalog on various types of stainless steel gate and globe valves, gauge glass, screwed, and flanged fittings. Illustrations; specifications; dimension tables. Corrosion data and resisting alloys. Construction details; drawings. Names of valve parts. Application data. List of alloy groups. Illustrations of typical installations; manufacturing data. Alloy Steel Products Co., Inc.

19-192. *Central Fire Protection Equipment (Bul. S-2-12644-BC)*, Central Automatic Sprinkler Co. Reviewed January.

19-193. *Economy Pumps (Cat. G845)*, 14-p. illus. booklet on large capacity horizontal and vertical axial flow pumps for drainage, condenser circulation, etc. Capacity; application. Construction data; illustrations; detailed drawings of operation and construction. Rules for station and special pump arrangements. Typical installation; selection tables. Economy Pumps, Inc.

★ **19-195.** *Lathurshelf (Form 947)*, 4-p. pamphlet on combination shelf and soap dispenser for commercial, institutional, industrial lavatories; made of 18-8 stainless steel; large capacity; extremely simple installation. Also complete line of other types of soap dispensers. Advantages, installation data, etc. American Dispenser Co., Inc.

★ **19-196.** *Stasco Seats (Cat. L)*, 49-p. illus. loose-leaf manual on a standard line of toilet seats. Terms and guarantees. Development of finishes. Illustrates, in regular and elongated bowls, Saniseal seats; Airlite plastic; Ebonite plastic, for rough and hard wear; deluxe marine-pearl; economy white, for low cost houses, etc. Details of construction; features; hinges; finishes; applications. Shipping data. Standard Tank & Seat Co., Inc.

★ **19-197.** *Thrush Ajustaflo (Form AT 247)*, 4-p. folder on an adjustable tee for single main method of heating which controls amount of hot water diverted from the main into the radiator. Description; advantages; sizes. Illustration of installation and operation process. Other Thrush products. H. A. Thrush & Co.

Specialized Equipment

Two booklets on a new perspective drawing instrument said to draw perspectives accurately in half the time required by other methods. Operation explained. Examples of drawings, and comparative timing. Pomeroy Stereograph Co., Inc.:
19-172. *What the Sensational New Pomeroy Stereograph Will Do For You.*
19-173. *A Short Cut to Perspectives.*

19-185. *Bruning 7" Core-Fed Eraser (A 1042-50M-9-47)*, Charles Bruning Co., Inc. Reviewed December.

19-186. *Surgical Equipment (July 1947)*, Ohio Chemical & Mfg. Co. Reviewed December.

19-187. *Wayne Drafting Tray*, Wayne Products Mfg. Co. Reviewed December.

19-198. *Executone (Form 250)*, Executone, Inc. Reviewed January.

19-199. *Fine Writing and Calligraphy*, 6 sheets on 17th century fine lettering and writing. Examples of Gothic, Roman, Old English, etc. (bold & italic). Also brochure on pen drawings. Suggestion for technique improvement. List of available pens for various subjects and paper surface. C. Howard Hunt Pen Co.

Surfacing Materials

19-188. *Facing Tile (Cat. 48C)*, Facing Tile Institute. Reviewed December.

19-189. *Terrazzo (AIA 13 B 5)*, 4-p. brochure on terrazzo for floors, walls, borders, as radiant heating finish, in various types of buildings. Adaptable to any color, design, or structure. Details; specifications; advantages; utilitarian and decorative uses. Other available literature. National Terrazzo & Mosaic Assn., Inc.

19-190. *Wrightex Soft Surface Rubber Tile*, Taylor Mfg. Co., Wright Rubber Products Div. Reviewed December.

Traffic Equipment

20-44. *Warsaw Equipment for Vertical Transportation*, Warsaw Elevator Co. Reviewed December.

20-45. *"Gyrol" Fluid-Drive Elevators*, Warsaw Elevator Co. Reviewed December.

20-46. *Murphy Elevators (Cat. 46)*, Murphy Elevator Co. Reviewed January.

20-47. *Vertical Transportation (B-677 9-47)*, 12-p. illus. booklet on passenger elevators (signal and collective control), hospital elevators, Escalators, freight elevators, dumbwaiters, and residence elevators. Description. Operation data; illustrations. Size and capacity tables. Detailed drawings. Otis Elevator Co.

PROGRESSIVE ARCHITECTURE, 330 West 42nd Street, New York 18, N. Y.
I should like a copy of each piece of Manufacturers' Literature listed.

We request students to send their inquiries directly to the manufacturers.

No.	No.	No.	No.
No.	No.	No.	No.
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Name

Position

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Mailing Address ☐ Home ☐ Business

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PA Products

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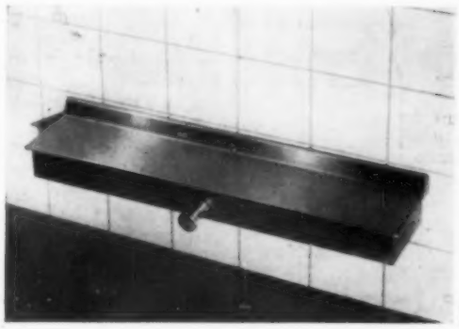

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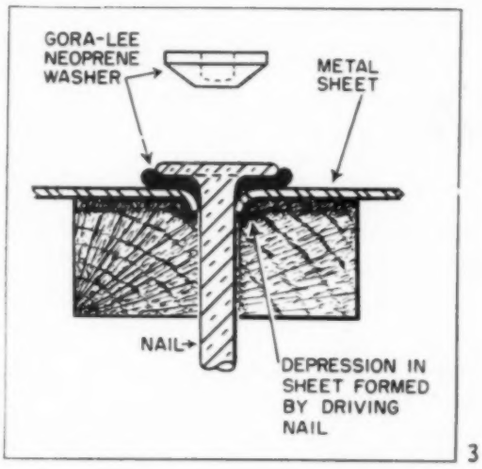

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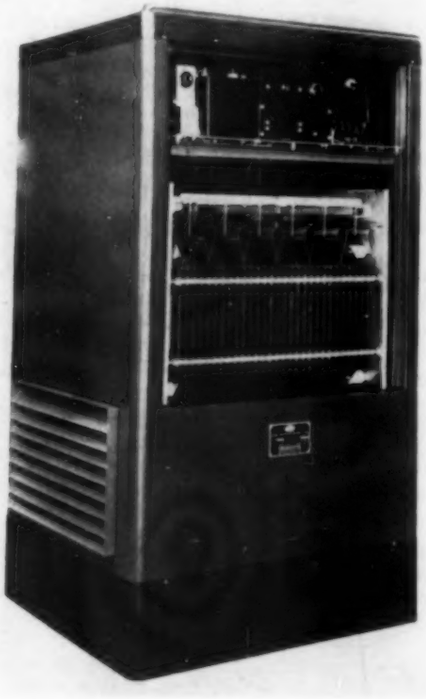


4

New Standards

Among developments late in 1947: The Fluorescent Lighting Association proposes a set of standards for dimensional and electrical characteristics of cold cathode lamps which they hope to have ASA approve. Those interested can obtain data from the Fluorescent Lighting Association, 501 Fifth Ave., New York, N. Y.

Another development of much greater importance—though it may have little "practical" effect—is the proposal by the National Bureau of Standards to replace the present universal length standard (one meter measured on a platinum-iridium bar which is stored in France) with the wave length of green radiation of mercury 198. For some time, precise measurements have been based on the red emanation of cadmium; however, the green line of mercury 198 is much more easily perceived, says NBS, and this makes accurate determination of its wave length more certain. A wave length standard, of course, can be translated into many forms of measurement, and can be obtained wherever mercury 198 and the proper apparatus are available.

The metal, mercury 198, is an isotope transmuted from gold by neutron bombardment. There's a certain irony, not only in the lack of publicity which has been accorded this offshoot of atomic exploration, but also in the possibility of the ancient alchemists' dream becoming the very foundation of modern science.

Supply and Demand in '47

Everybody knows that demand for building materials and construction far outstripped supply in '47; this situation is improving. For instance, Thermopane, the prefabricated insulating glazing manufactured by Libbey-Owens-Ford, has finally, their advertising manager tells us, succeeded in meeting a demand up 800% since 1945, and in bringing their back-order file down to a 45-day basis as well as shipping stocks to dealers all over the U.S.A. This means that standard sizes should be obtainable almost immediately, special sizes in 45 days.

At what cost are such achievements made? United Industrial Associates, Inc., of Washington, D. C., offers statistics on costs of houses. The average price of an American house in mid-December was $10,648 —compared with $4,599 in 1939. In Los Angeles, the most inflated market, prices have nearly tripled in the same period; New York, Boston, and Chicago are also high-priced markets.

1. New air diffuser by *Anemostat* has adjustable center cone to increase its adaptability to varying conditions. *2. Lathurshelf,* made of stainless steel, combines soap dispenser for one or two lavatories with hollow shelf which is the soap reservoir; American Dispenser Co., Inc., New York, N. Y. *3. Neoprene washer* for waterproofing nails, now applied before shipment by several manufacturers, including Nichols Wire & Steel Co., Davenport, Iowa; and Independent Nail & Packing Co., Bridgewater, Mass. *4.* New *Home Precipitator* (Raytheon Mfg. Co., Inc., New York, N. Y.) for electrostatic air cleaning for domestic air conditioning; unit is 54 in. high, weighs only 300 lbs, costs about $550 plus installation.

Products

THIS MONTH'S PRODUCTS

AIR AND TEMPERATURE CONTROL

Class "T" Temperature Regulator: single-seated temperature regulator for steam pressure to 125 psi (175 psi liquid) and temperatures to 450F. Has packless main valve stem and hard-faced seating surface. Sizes ½" to 4". Leslie Co., 58 Delafield Ave., Lyndhurst, N. J.

Home Precipitator: small electronic precipitator for domestic use becomes an integral part of the air conditioning or heating system. Is said to remove 90% or more of all airborne dirt. 54" high, 28" wide, 27" deep; 300 lbs in weight. Consumes 50 w per hour. Raytheon Mfg. Co., 60 E. 42nd St., New York 17, N. Y.

Pacific Suspended Heater: contains all heating elements within streamlined body. Fan spreads warm air downward to desired location. For commercial and industrial use. Naco Mfg. Co., 7631 Roseberry Ave., Huntington Park, Calif.

Type AA Climate Changer: air conditioner for small multiple units in apartments, hotels, tourist courts. Summer-winter thermostat control; seasonal change-over manipulated by valves at central plant. Two styles; three sizes available. Trane Co., La Crosse, Wis.

DOORS AND WINDOWS

Aluminum Awning: fire-, wind-, and rust-proof aluminum venetian year-round awning for domestic, office, institutional use. Has inside fingertip shade control. Also colored awning for decorative use. J. E. Baker Co., 1325 E. 152nd St., E. Cleveland 12, Ohio.

No. 32 Cabinet Catch: catch designed for either lipped or flush cabinet doors. Requires no mortising. Roller fastens either to cabinet shelving or side jamb; serves as cushion against clicking or slamming noise. The Stanley Works, New Britain, Conn.

Door Control: a steel or cadmium-plated door control claimed to require no periodic oiling or servicing. Door closes rapidly up to about 1" of full closure, then eases into place. For domestic, industrial, and office use. Comes in standard and heavy duty sizes; each weighs 1¼ and 2½ lbs respectively. Mallory Co., 1201 E. Eight Mile Road, Hazel Park, Mich.

Wood Casement Window Operators: complete line, with internal, external, and horizontal gearing in choice of materials and finishes. Newly redesigned model No. 4703 W features solid bronze housing, plus simplified installation. Another recent addition, No. 4700, can be used interchangeably for right- or left-hand casements. H. S. Getty & Co., Inc., 3346 N. 10th St., Philadelphia 40, Pa.

ELECTRICAL EQUIPMENT AND LIGHTING

Allied Fluorescent Lampholders: lampholders featuring spring-action prongs which grip lamp pins and hold securely; also procure positive contact between lamp and starter. Guide prevents incorrect insertion or removal. Prevent cracked sockets, faulty contacts, falling lamps. Allied Fluorescent Products, 77 Cort St., Irvington, N. J.

Aurora and Versile: two new electric fixtures. **Aurora,** a white metal fluorescent ceiling unit of low brightness contrast; measures 15½" width and 49" length. **Versile,** a dusk-gray, portable, swivel-type unit for window display, domestic use, etc. Glare reduced by additional clip-on-louver assembly. Uses R-40, PAR 38 reflector or standard lamps up to 150w. Kurt Versen Co., Englewood, N. J.

Pendant-Type Electric Fixture: pendant set designed to blend with other Sylvania commercial fluorescent fixtures. Ceiling strap facilitates mounting by means of cutaway stem slots, permitting assemblage on floor; entire assembly is then raised, stem and locknuts engaged in cutaway slots. Canopy secured to assembly by one center screw. Sylvania Electric Products, Inc., 500 Fifth Ave., New York 18, N. Y.

Swivelier "960": chrome-plated, satin- or bronze-finished counter lamp which adjusts to any position; for department store, office, domestic use. Weighted to prevent tipping; felt base protects against scratching. On-and-off switch on base. Socket 250v-660w rating. Swivelier Co., Inc., 30 Irving Pl., New York 3, N. Y.

FINISHERS AND PROTECTORS

Fyr-Kote: line of fire-resistant finishes which may be used over old paint. Protects inflammable wood fibers beneath surface, confining and retarding the flames. Available in three finishes. Also **Flame Proofer Clear:** a transparent solution for drapes, rugs, or any waterfast fabric. Impregnated materials will withstand application of a blowtorch. Fyr-Kote Co., 1823 Washington Ave., St. Louis, Mo.

Rubber Bevels and Grooves: rubber strips used in new method of forming bevels and decorative grooves on concrete surfaces. Strips are attached to forms instead of conventional wood strips; can be removed easily and reused. U. S. Rubber Co., Rockefeller Center, New York 20, N. Y.

Weatherproofing Roofing Nails: a neoprene washer which forms a seal around nail holes in metal roofs and sidings to prevent corrosion. Neoprene rubber used in washer is said to bear up under all types of weathering. Nicholas Wire and Steel Co., Davenport, Iowa; also Independent Nail and Packing Co., Bridgewater, Mass.

SANITARY EQUIPMENT, WATER SUPPLY, AND DRAINAGE

Boosey Floor Drains: a drain which combines clamping ring and heavy traffic deep set strainer; made of solid nickel alloy which eliminates peeling or loosening of plating. Unit provides watertight installation where heavy factory truck traffic is necessary. Norman Boosey Mfg. Co., Div. of American Skein & Foundry Co., 420 N. La Salle St., Chicago 10, Ill.

Lathurshelf: new combination shelf and liquid soap dispenser for commercial, institutional lavatories. Made of 18-8 stainless steel, thus eliminating verdigris. Large capacity. Snap lock on cover opens only with key supplied. Gage indicates liquid level. Simple installation. American Dispenser Co., Inc., 215 Fourth Ave., New York 3, N. Y.

Mullinaider: kitchen waste disposer; motor-driven; grinds garbage into fine particles, easily flushed down drain. Centrifugal action provides scouring motion which keeps pipes clean and eliminates odor. Can be installed in either single- or double-bowl sinks. Mullins Mfg. Corp., Warren, Ohio.

SPECIALIZED EQUIPMENT

Hermetically-Sealed Water Coolers: for industrial, commercial, or institutional needs. Complete line featuring automatic pressure regulator, new orifice to prevent squirting and water damage, removable front panel giving easier access to mechanical parts. Each cooler backed by manufacturer's five-year protection plan. Westinghouse Electric Corp., East Springfield, Mass.

Infinarc: stainless steel drawing instrument with four preformed wire curves said to draw almost any shape curve desired (including reverse curves) by moving two adjustable screws along slots of instrument. Comes in lacquered wood case. Cook Specialty Co., Green Lane, Pa.

Vanishing Patch: dry, transparent film which, when placed over tear on drawings and ironed with miniature electric "patch welder," is said to make patches invisible on blueprints. Thermostat controls heat of welder and prevents burning or scorching. Seal, Inc., Shelton, Conn.

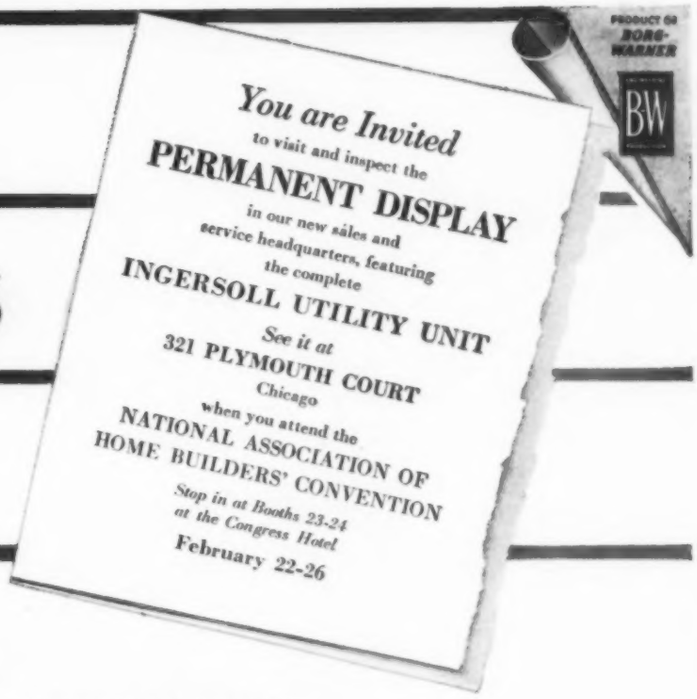
SURFACING MATERIALS

Chrome and Colored Wall Tiles: chromium-plated zinc tiles and colored tiles, for kitchen, bathroom, clubhouse, restaurant, etc. Chrome tiles come in four finishes: striped, bright, checked, and satin. Colored tiles available in five colors: ebony, gold, maroon, royal blue, and sage green. Tile-O-Chrome Corp., 4421 N. Clark St., Chicago 40, Ill.

TRAFFIC EQUIPMENT

Lightweight Escalator: especially designed for maximum rise of 23 ft. Said to bring about 25% savings in weight and 33% in cost, when compared with standard size. Operating machinery built within unit's truss, eliminating need of machine room. Speed rate 90 fpm; 30° incline; handling capacity, 5,000 persons per hour. Width between handrails 32". Otis Elevator Co., 260 11th Ave., New York 1, N. Y.

Firmly Installations to Coast!



ADAPTABLE TO INDIVIDUAL PLANS AND REQUIREMENTS

Expansion, and consolidation of facilities, now make it possible to produce the Ingersoll Utility Unit more efficiently and to furnish it so that it is more adaptable to individual plans and needs. The improvements in manufacture allow the architect or builder to furnish expanded kitchens, to offer a choice of heating units and to better meet local building requirements.

Only a little over a year ago the Ingersoll unit was new and untried. Proved practical and economical in 211 cities during 1947, it has demonstrated its value in housing projects of every description. It is adaptable to a wide variety of plans in single home and multiple dwellings.

The Ingersoll Utility Unit is compact, requires less than 80 square feet of floor space and provides more living space for less money. Complete, it eliminates time-consuming specifications — everything comes with one purchase, from one source, right when it's needed. It cuts building time from three to four weeks and can be installed before, during or after construction of building framework.

It will pay you to check the many time and money saving features of the Ingersoll Utility Unit. Send for illustrated brochure and see for yourself how the Ingersoll Utility Unit can fit into your plans for better homes in every housing project.

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FROM THE TECHNICAL PRESS

By JOHN RANNELLS

HANDBOOKS, MANUALS, PAMPHLETS

Durisol. *Durisol, Inc., 420 Lexington Ave., New York, N. Y. 8 pp., illus.*

Here is a new material that will bear watching—lightweight, good insulating qualities, rough-textured, strong and (presumably) cheap. It is a wood-chip cement block or panel with the wood-chip aggregate treated chemically to bring about mineralization of the fibers. It was used extensively in Switzerland during the war and should take hold here, assuming that tests of its physical properties compare favorably with materials already in use.

HHFA Technical Bulletin, *Vol. 1, No. 1. Nov. 1947. Housing and Home Finance Agency, Washington 25, D. C.*

This modest, effective bulletin is packed with ammunition for the Housing and Home Finance Agency's campaign for lower building costs.

The drive for uniform codes based on realistic performance standards is described in an article, "Lower Costs Thru Better Codes." A uniform plumbing code, soon to be issued, is described under "Housing Research," as are studies of lightweight concrete, condensation control, etc.

A very thorough article on "Insulation of Concrete Floors in Dwellings" presents the facts of heat losses with various methods of insulation and makes clear recommendations, illustrated by well drawn details.

Earth construction of different types is touched on briefly, and a thorough bibliography on this subject is given.

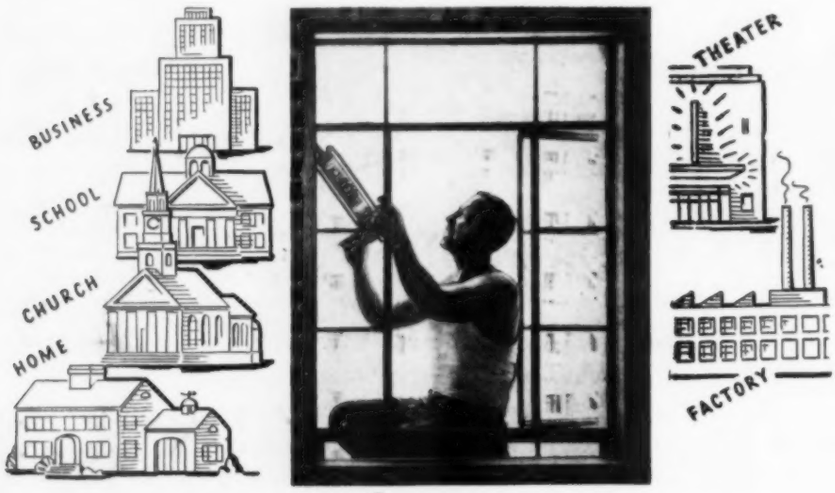
Structural and Insulation Requirements for Houses. *Housing and Home Finance Agency, Washington 25, D. C. 12 pp., 8½" x 11". 10 cents*

This, the first of the Housing and Home Finance Agency's Performance Standards, sets up a uniform basis for measuring the adequacy of building materials and house construction methods. Under these standards the merits of new materials and building techniques can be judged and put to use. The arrangement is clear and concise, with no words wasted.

The Industry-Engineered Homes Program, 1948. *National Retail Lumber Dealers Assn., 302 Ring Bldg., Washington 6, D. C. 128 pp., 8½" x 11", illus. $1.00*

This booklet contains a good deal of material on the industry-engineered house, concentrating on two typical examples, one- and two-story, 768 and 896 sq ft total area. An excellent general description is given of the advantages of modular materials and details as applied to these plans which are based on a 16-ft span between exterior walls. (A variety of plans, based on these principles, is understood, of course.) Details are given for several types of floor and wall construction, the purpose being the best utilization of materials and labor. The choice of materials is determined by local conditions, for the entire program is cen-

(Continued on page 98)



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Dependable weather protection in concentrated form for every type of building. Pecora Calking Compound, when used for sealing joints around window and door frames, and for pointing up masonry, assures these important benefits.

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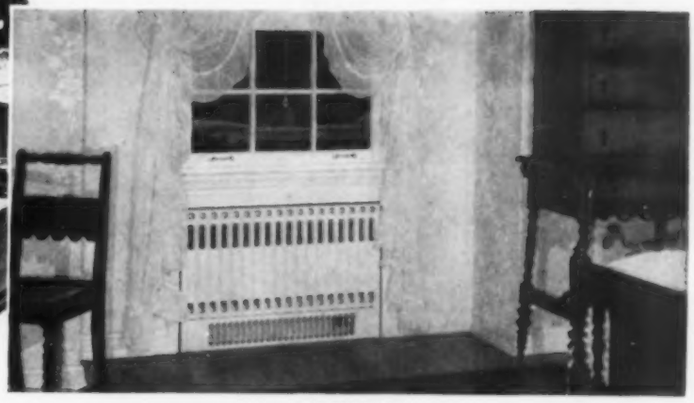
ROOF COATING • WATERPROOFING • DAMPPROOFING • SASH PUTTIES
MASTICS FOR DECORATIVE METAL TILE



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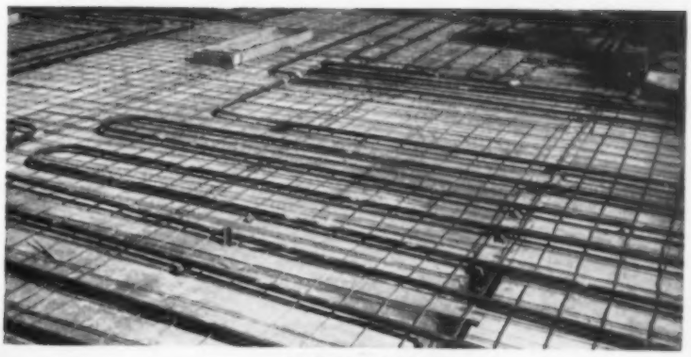
for any kind of Radiation

For luxurious winter comfort, there's nothing like the sunny warmth of radiant heat! And whether it is distributed by radiators, baseboards, convectors or radiant panels, a B & G *Hydro-Flo* Heating System assures you of its maximum benefits.

B & G *Hydro-Flo* Heating takes full advantage of the basic superiority of *forced hot water* as a heating medium. It establishes ideal comfort conditions because it measures out heat in the exact amounts required by the weather. As the outdoor temperature varies, the average temperature of the water in the system *is varied also,*

CONVECTORS

BASEBOARDS



RADIANT PANELS

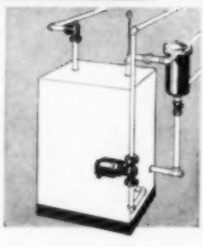
providing exact compensation for changes in heat loss.

The result of this *variable* water temperature is a *constant* room temperature, regardless of weather changes. Operating economy is obvious since fuel is burned only in amounts sufficient to satisfy the heat demand.

Don't forget year 'round hot water

With a B & G *Hydro-Flo* Heating System installed, the same boiler that heats the house also heats water for kitchen, laundry and bath. The supply is virtually limitless . . . low in cost . . . furnished 24 hours a day, all year 'round.

B & G *Hydro-Flo* Heating Equipment can be installed on any hot water heating boiler. It is known everywhere for dependable operation.



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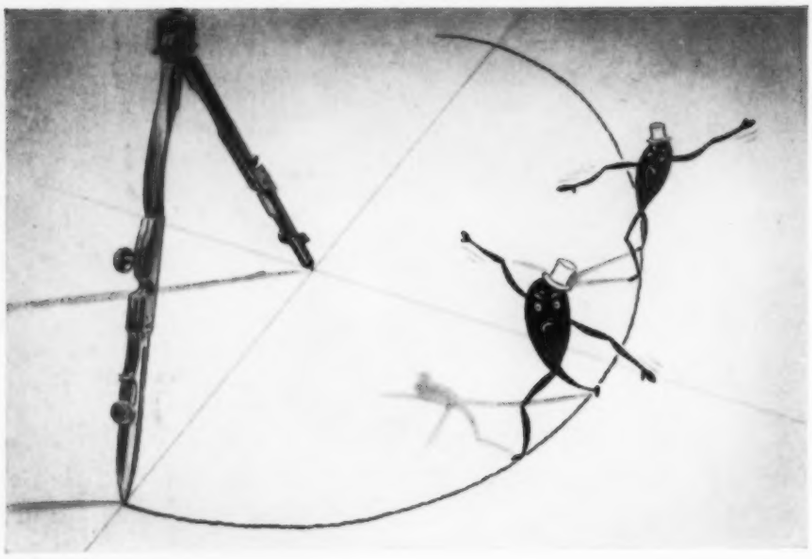

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Reviews

(Continued from page 96)

tered around retail yard services. In addition to the general exposition by the lumber dealers there is a wealth of material supplied by other interested groups from structural clay products to kitchen equipment. It all adds up to an excellent manual of economical construction for small house work. The program should have very good results, even though these plans will inevitably be used in most cases as stock plans without benefit of architect. (The inevitable "horrors" of bad site planning will be no worse than at present.) Architects in the small house field will find much of value to them here, even though they don't use any of the material "cold."

Radiant Panel Heating. *Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y. 36 pp., 8½" x 11".*

An unsatisfactory attempt to present a non-technical discussion of a technical subject. Revere's Research and Development Department has managed to confuse good basic material (papers by Raber and Hutchinson) just enough to mystify the reader. The illustrations of actual installations are very good. Of course, the freedom from corrosion of copper is stressed. It is unfortunate that the handling of the text is not up to Revere's previous high standard.

Rayduct, The Pipe for Radiant Heating. *Bethlehem Steel Co., 703 E. Third St., Bethlehem, Pa. 40 pp., 8½" x 11".*

Bethlehem has developed a pipe which can be easily bent cold and readily welded into radiant heating panels. The pamphlet emphasizes layout and installation details, and contains an excellent discussion of radiant heating theory and practice well illustrated by photographs and line cuts. Of course, the freedom from corrosion due to the "closed system" inherent in panel heating is stressed.

FROM OTHER PUBLICATIONS

Information Sheets. The Architects' Journal, *13, Queen Anne's Gate, Westminster, S.W. 1, London, England. Oct. 2, 1947.*

Data sheets are to be issued regularly by *The Architects' Journal*, covering all sorts of subjects classified into 46 groups under six heads: general (practice, science, planning); construction by materials; construction by products; services and equipment; applied finishes and treatments; furniture and fittings, miscellaneous.

This is an entirely fresh, new series, superseding the former information sheets which were a casualty of the war. The two sheets given to start with promise well for the series. One is an

(Continued on page 100)

Hang the door problems!

The Hardware Consultant in your locality has the training and experience, not only to take care of specification and price details, but also to suggest hardware designs, qualities and functions in keeping with your buildings.

THE DETAILS of hardware specification mean a laborious job that a busy architect is usually willing to hand over to a good hardware consultant. This is doubly wise because the modern consultant's services go much farther than catalog work. His specialized training highly qualifies him to diagnose, advise and cooperate with you in the most exacting requirements of the structure you are planning.

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Reviews

(Continued from page 98)

excellent treatise on perspective, the other a detail of a suspended acoustic ceiling system.

The Heating of Houses. The Architects' Journal, *13, Queen Anne's Gate, Westminster, S.W. 1, London, England. Oct. 2, 1947.*

Continuing the full-scale research on heating conditions in actual use, 20 houses have been built with identical insulation and different heating systems. (The first group of eight had identical heating systems but different thermal insulation.)

After an initial calibration period under scientific observation the houses will be put to normal family use. Fuel consumption and the temperatures maintained in various rooms will be recorded by built-in instruments without burdening the tenants with record-keeping. The initial calibration period will establish usable comparative data on different types of appliances. The really valuable results will take years, but meanwhile a truly realistic program is in progress and it will give workable results, tested in practice.

Tomorrow's School Building. *William S. Vincent.* The School Executive, *470 4th Ave., New York 16, N. Y. Nov. 1947.*

This article is the result of a study of recent literature on school building design and covers general needs rather than specific requirements:

1. More space for demonstration, exhibition, experimentation; workrooms in addition to the traditional classroom, and spaces for student activities outside of classes, such as school stores, meeting rooms, etc.

2. Flexibility by building with non-bearing curtain walls to provide for altering sizes of rooms or using accordion partitions to convert several small rooms into one large room.

3. Variability in decorative treatment, suitable to rooms of various uses; use of display niches in otherwise unrelieved corridors.

4. The school as a child's institution, conceived as a community, preferably spread out in units of varying type, away from main traffic, pleasantly landscaped.

5. Anticipation of future educational practice by close attention to current educational developments.

6. Cooperative planning, architect and administrator working together, keeping always in mind the needs of staff, teachers, public.

7. Accommodation for all-weather, all-purpose, all-season program, for the school and for the community, utilizing the school yard with its recreational

(Continued on page 102)

This switch says plenty by keeping silent

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Are you familiar with the great variety of products in General Electric's full line of wiring devices? Do you know the interesting features that help to make them easy to use and safe to specify? Keep an eye on this column, and you may discover a lot of useful facts and information. We'll keep dishing them out for you.

Now, the entire Watch Dog* line of starters meets a new, high-temperature rating. Maximum recommended operating temperature has been increased from 140 F to 160 F. This is important in installations that are enclosed, or that are subject to high ambient temperatures.

Whether you already include fluorescent lighting in your plans, or just want more information for your files, you need this new folder on "G-E Fluorescent Accessories." It shows you—and your clients—what products G.E. is making, and how they can be used to advantage. Tells about Watch Dog* and standard starters; Slimline, Circline, and Twin Turret lampholders; and fluorescent starters and switches. Ask us for a supply today.

A certain well-known soap has nothing on those boys in G.E.'s "fuse factory." Do you know that the zinc used in General Electric fuse links has to be *99.98 per cent pure* by laboratory test? Good point to remember when you specify fuses for that next job.

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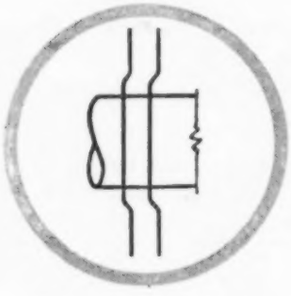

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RADIATOR MANUFACTURERS FOR OVER TWO DECADES

(Continued from page 100)

possibilities, the school library, shops, auditoriums, etc., for community use, making the school an integral part of the community.

BOOKS

STATING THE CASE— FOR THE APARTMENT

Apartment Houses. *Joseph H. Abel and Fred N. Severud. Reinhold Publishing Corp., 330 W. 42nd St., New York 18, N. Y., 1947. 288 pp., illus. $10.00. (Second book in the Progressive Architecture Library series)*

With the assistance of his colleagues, Joseph Abel has written a book that says the last work on its subject. Architects who have any aspirations to design multiple dwellings will not glance at it and put it away on the shelf, but will con it until it is dog-eared. It comes at the right time, too. The authors evaluate a decade of prewar evolution in apartment house design. But while being wholly practical for 1948, their conclusions reach out for another decade or two—decades of continued urbanization and rental housing demand that will be filled with apartment house building.

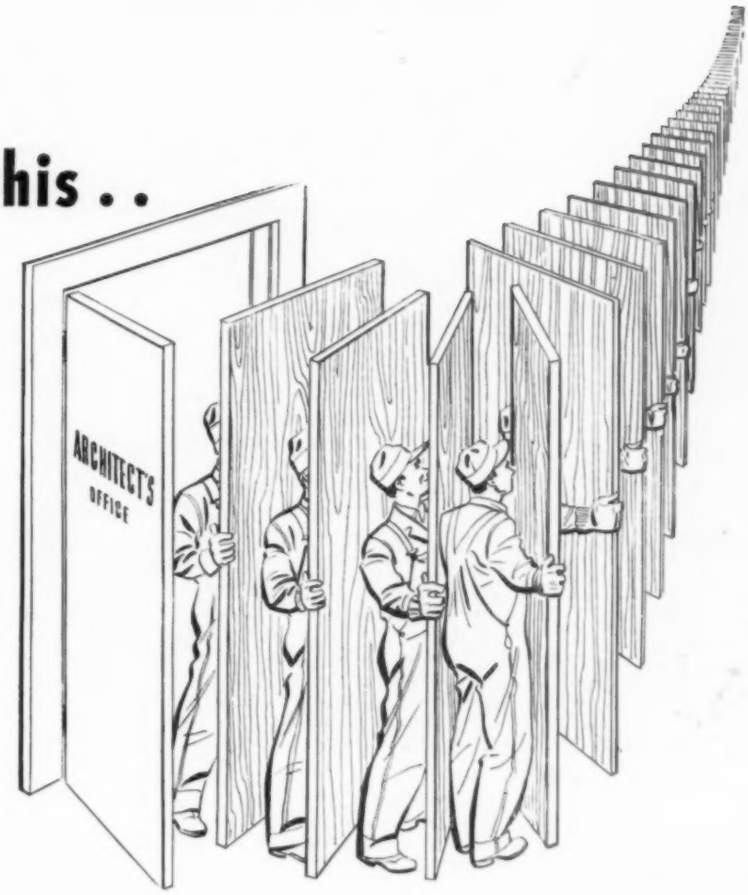
The authors have not omitted to state the case for the apartment. In doing so, they also point out the proliferation of apartment house design into many distinct types. The urban luxury apartment, so-called "efficiency" apartments, the family-sized suburban garden apartment, public housing—each type is identified and its potentialities are shrewdly appraised and given appropriate analysis.

The authors have in the best sense an *architectural* attitude. In consequence, they have written a thoroughgoing book that reaches a high professional standard and will be of great practical usefulness. Their approach to design is fresh and analytical. Almost every problem that must be faced in the architect's work as apartment house designer is treated, giving all of the pertinent data and a reasoned statement of the arguments that support the correct solution. Four pages, for example, are given simply to listing elements in site selection. I think Mr. Abel's readers will find an incidental value in the book. In addition to helping them think through their problems, it will also help architects to convince their clients!

While much has been written on the functional analysis of apartments, the authors have summed up nearly all the relevant data relating to floor plans and

(Continued on page 104)

What's this . .



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Louisville 10, Ky. . . 1201-5 S. 15th St.
Long Island City, N. Y., ... Review & Greenpoint Ave.
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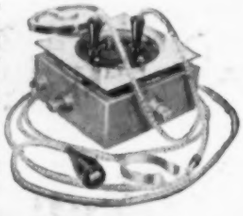

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Reviews

(Continued from page 102)

layouts, kitchens, baths, storage, and other elements. An atmosphere of realism is given by the numerous sketches of circulation patterns. The full tables of data are counterbalanced by recent reviews of tenant behavior and opinions, as disclosed in "livability" surveys.

It would not be fair to leave the impression this is a pedestrian book. It is a book for reference, but it is also a genuinely exciting book to read. The authors are interested above all in workable ideas. They are not overconcerned whether a building has been erected or remains a project, recognizing what everyone knows but too seldom pays attention to—that there are more and better buildings in the plan files than there are in city streets.

Pointing to the future of apartment design, as disclosed by present trends, the authors feel that emphasis on the super-block will continue, and that further mechanization and low maintenance will characterize the design of most new buildings. They might also have added that the changes now taking place increasingly make obsolete thousands of older apartments (and not a few brand-new ones) and that the longer builders and investors delay in bringing their ideas up-to-date, the more money they will lose.

FREDERICK GUTHEIM

MIES VAN DER ROHE

Philip C. Johnson. The Museum of Modern Art, 11 W. 53rd St., New York 19, N. Y., 1947. 207 pp., illus. $7.50

A monograph on the work of the internationally known architect who is now director of architecture at Armour Institute of Technology. Plates and running text carry the study from his student work to the current construction of the new Armour campus. It is complete and useful, although sometimes cloying in its constant use of superlatives. Some of Mies' writings are appended, and there is an excellent bibliography.

T. H. C.

HISTORIC MIDWEST HOUSES

John Drury. University of Minnesota Press, 1.0 Westbrook Hall, Minneapolis 14, Minn., 1947. 246 pp., illus. $5.00

Photographs of house museums in the Midwest comprise a memento of pioneer effort by men who had first to shelter themselves in the wilderness and whose sons were to remember manners and monuments of the Seaboard Colonies. There is not an architectural detail that could not better be copied from Eastern examples, but the text is informative in its account of the beginnings of many families influential in America today.

C. M.

SAN FRANCISCO PERSPECTIVE

San Francisco Bay Cities. Around the Golden Gate in Pictures. *Josef Muench. Hastings House, 67 W. 44th St., New York 18, N. Y., 1947. 101 pp., illus. $2.50*

A lively introductory statement by Joseph Henry Jackson helps explain the combined serenity and vigor that typify this sparkling city by the Golden Gate. Mr. Muench's superb photographs, including views of nearby Marin County, Berkeley, Oakland, and Palo Alto, as well as of San Francisco proper, bring the area into sharp focus and polish the highlights. No San Francisco devotee could fail to delight in the choice of subjects; would-be travelers will find the collection a tangy appetizer. Happily, a few shots show the awful and wonderful carpenter's Gothic row houses of earlier days. For more recent structures, the larger and more imposing suffice. Little sign here of the exciting progressive architecture for which the area is world renowned.

G.A.S.

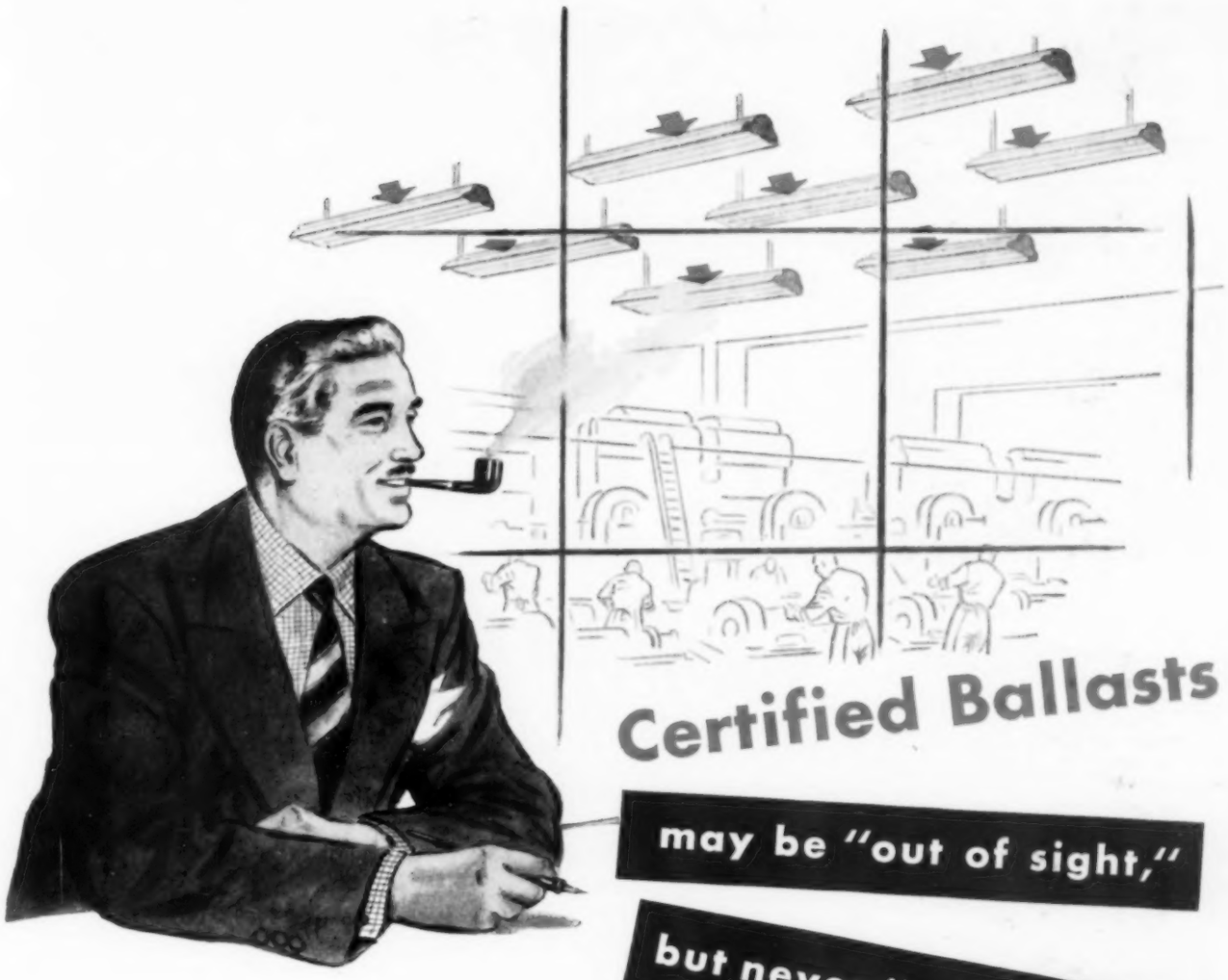
PICTURES TO ENJOY

Springtime in Virginia. *Samuel Chamberlain; introduction by Virginius Dabney. Hastings House, 67 W. 44th St., New York 18, N. Y., 1947. 329 pp., illus. $4.00*

Behold Williamsburg. *Samuel Chamberlain. Published in cooperation with Colonial Williamsburg by Hastings House, 67 W. 44th St., New York 18, N. Y., 1947. 176 pp., illus. $5.00*

These are the two latest in a long line of photographic compilations by the well known author, whose penchant for seeing and recording the beauty of landscape with or without architectural elements has delighted a whole generation of picture lovers. The first of the two volumes is a compounding of the contents of six years of *The Virginia Calendar*, an annual publication by the same author. The second is a comprehensive selection of pictures taken over a period of 10 years at Colonial Williamsburg and seasoned with a sprinkling of sketches and dry points in Mr. Chamberlain's inimitable but unmatched style. For those who still believe that architecture is to be looked at and enjoyed in its natural surroundings as well as lived in and used, these books are full of inspiration and instructiveness. Earth, trees, and greenery; sunshine and shadow; all are part of the architect's means of making his buildings meaningful beyond their purely utilitarian aspects. The smartest progressives can learn from these compositions, even though the architecture Mr. Chamberlain depicts belongs to another era.

KENNETH REID



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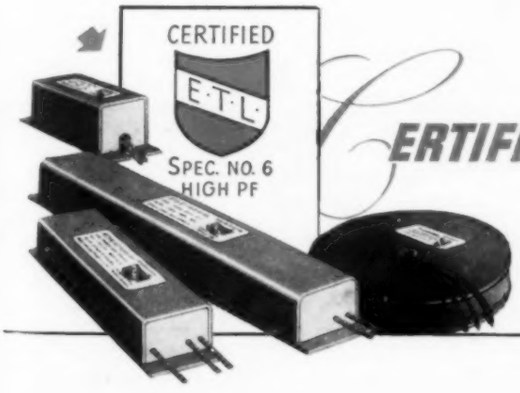

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Stop Waste of Floor Space!

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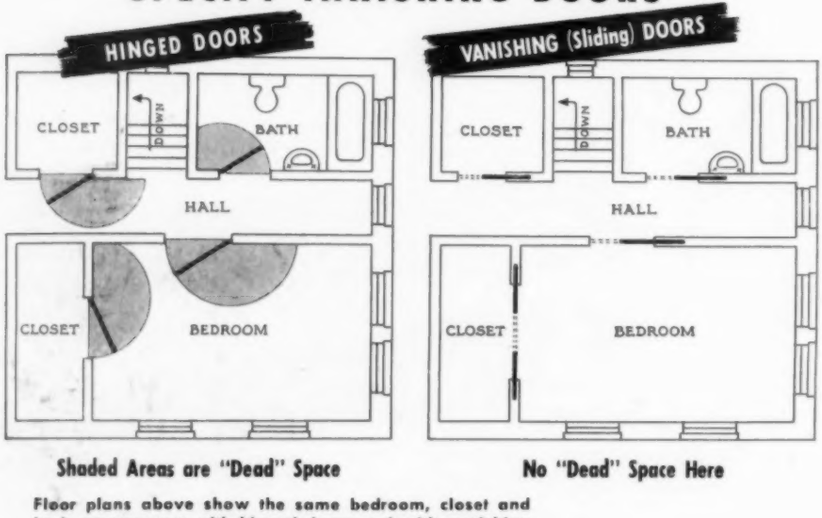

Shaded Areas are "Dead" Space **No "Dead" Space Here**

Floor plans above show the same bedroom, closet and bath arrangement with hinged doors and with vanishing doors. Note absence of "dead" areas in plan utilizing vanishing doors.

Whether it's a spacious mansion or the tiniest kitchenette apartment, wasted floor space is wasted money! And every hinged door wastes the floor space covered by its swinging arc. With vanishing doors there's no floor area lost . . . furniture, pictures and fixtures can be placed correctly and conveniently; rugs can be laid close to the wall line; color harmony is not disturbed by the "wrong side" of an open door. For all interior doors, it's smart *and economical* to install vanishing doors.

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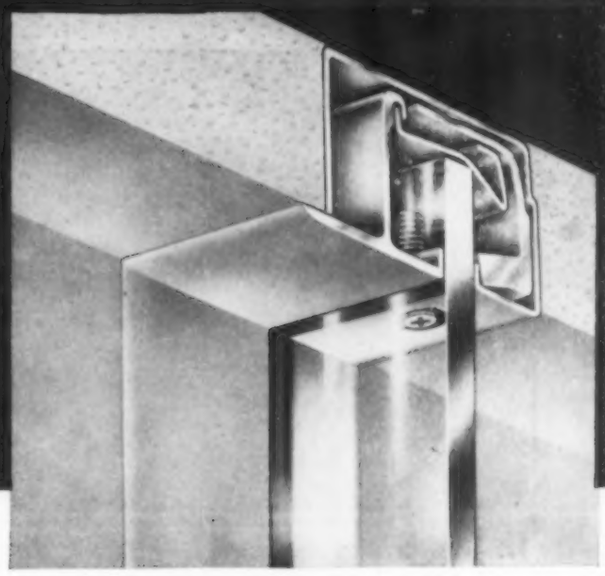
(Continued on page 108)

Kawneer's Store-Tested Flush-Glazing Assembly



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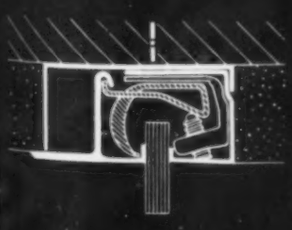
Ketchum, Giná and Sharp,
Architects, New York City



Full-size cross section view of Kawneer's Flush-glazing Assembly.

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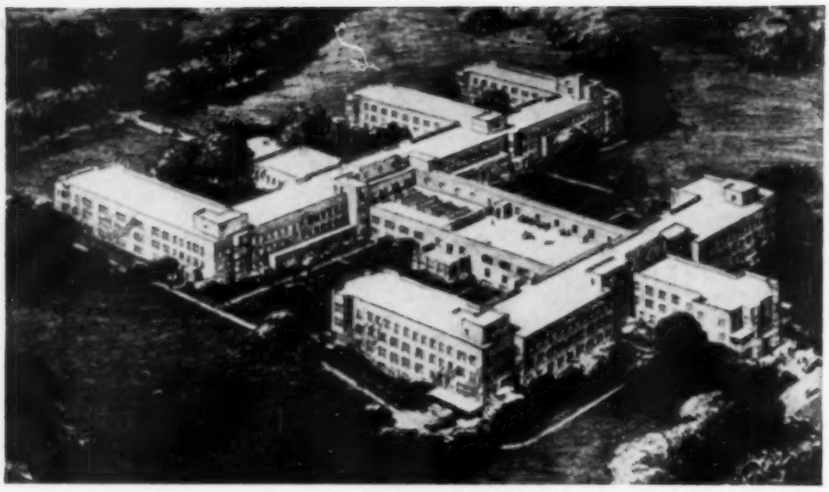

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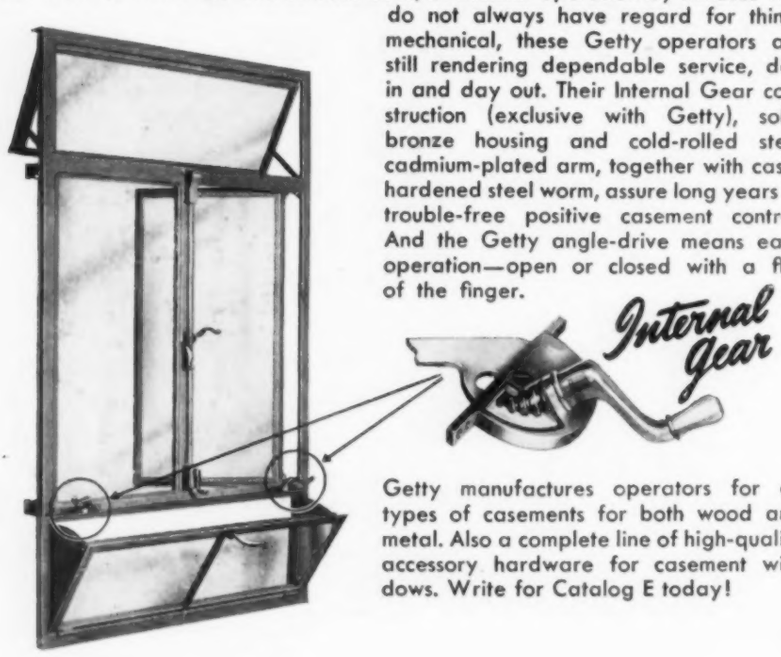

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Jobs and Men

(Continued from page 106)

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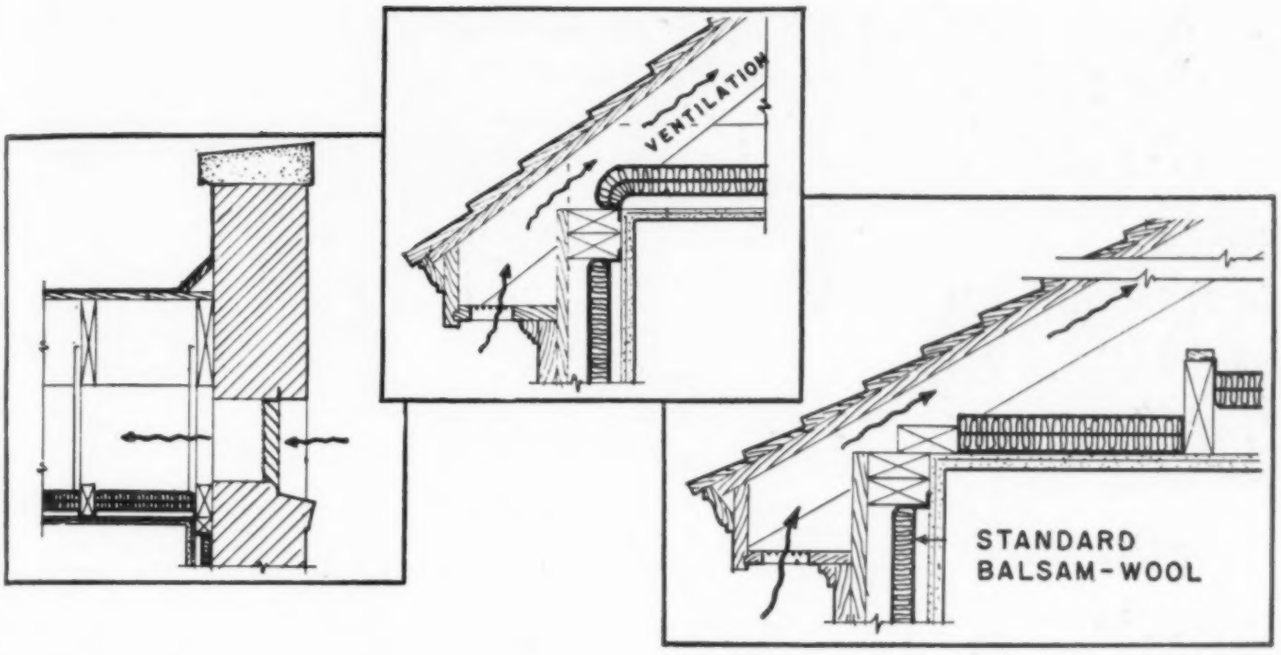
(Continued on page 110)



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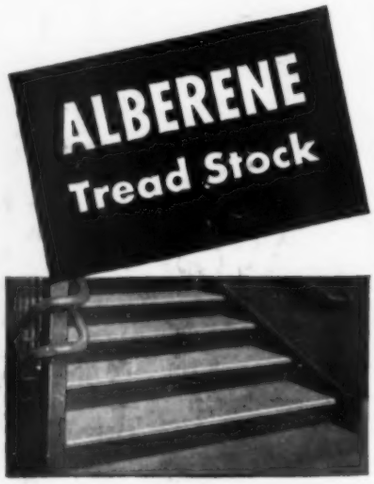

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Jobs and Men

(Continued from page 108)

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Notices

NEW PRACTICES, PARTNERSHIPS

MORGAN STEDMAN, FURBER LIBBY, and DOROTHY GRAY have formed a partnership with offices at 180 University Ave., Palo Alto, Calif.

HUGH B. JOHNSON & ASSOCIATES have announced the opening of offices at 1129 Vermont Ave., N. W., Washington 5, D. C.

ELIEL SAARINEN and EERO SAARINEN have announced a new partnership under the name of SAARINEN, SAARINEN & ASSOCIATES, with offices at West Long Lake Rd., Bloomfield Hills, Mich.

P. M. O'MEARA ASSOCIATES has changed its firm name to MAGUOLO & QUICK, retaining the same offices in St. Louis, Minneapolis, Detroit, and Cincinnati.

ARTHUR J. KELSEY has opened an office at 1830 Jefferson Pl., N. W., Washington 6, D. C.

LEON HYZEN, formerly with RAYMOND LOEWY ASSOCIATES, has opened his own offices at 53 W. Burton Pl., Chicago, Ill.

LOUIS A. OLIVER has announced a new practice at 823 W. 21st St., Norfolk, Va.

ROBERT A. LITTLE has opened a new office at 1303 Prospect Ave., Cleveland 15, Ohio.

DAN SAXON PALMER has announced the opening of his new architectural office at 3633 Carnation Ave., Los Angeles 26, Calif.

LESLIE J. GREENWALD and JULES G. MIROT have opened an office at 127 N. Dearborn St., Chicago 2, Ill.

ROBERT L. BROWN and WILLIAM G. WELLS have formed a partnership under the name of BROWN & WELLS, P. O. Box 1205, Roanoke, Va.

HARRY A. BALKE, consulting engineer, has opened an office at 800 Broadway, Cincinnati, Ohio.

NEW ADDRESSES

JOHN A. CAPONE, 505 Orange St., Newark 7, N. J.

WALTER H. SOBEL, 737 Michigan Ave., Chicago 11, Ill.

CHARLES MELOV, 310 Coral Way, Coral Gables, Fla.

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P/A P.S.

IN THE NOVEMBER 1947 ISSUE OF P/A we ran an article on hospital equipment, on which we have received many compliments. However, I have a letter from Mr. G. K. Lermond, who is in the hospital department of Wilmot Castle Company, questioning a table we used to show sterilization times. We said that a "commonly quoted authority" gave one minute as the thermal death point of resistant pathogenic spore-bearing organisms in 15-lb. steam at 250F. Mr. Lermond writes, "We, who are interested in sterilization, know that resistant dry spores are destroyed in *13* minutes by saturated steam at 250 degrees."

He goes on to quote Dr. Carl Walter, director, Laboratory for Surgical Research, Harvard Medical School, an authority whom we had mentioned in our article, and encloses an article by Dr. Walter. Sure enough, the article says just what Mr. Lermond does—13 minutes. So we turned back to our original authority—an article in the December 1938 issue of the *Journal of Bacteriology*, by Hoyt, Chaney & Cavell, which says, "In direct contact with steam the more resistant of the pathogenic spores are destroyed in one minute at 250F. . ."

We have no desire to get involved in a disagreement among research authorities. Incidentally, Dr. Walter's article is available as a pamphlet through the Wilmot Castle Company; the other article is quoted in a pamphlet distributed by the American Sterilizer Company.

●

SOMETIMES IN THIS JOB WE GET A CHANCE FOR PROMOTION OR PUBLICITY which does us no harm at all and at the same time helps the profession as a whole. An instance of such an opportunity occurred recently, when I got a call from N.B.C. asking if I would like to be interviewed on the Jinx Falkenberg - Tex McCrary morning program about our book, *Homes*. There seemed no good reason to say *no*, so I said *yes*. In the course of the program, **P/A**, Reinhold, and *Homes* got mentioned, just by accident, you understand, but at the same time I managed to get in plugs for a number of individual architects and, I hope, do a small job for good residential design in general. Besides that, it was a lot of fun.

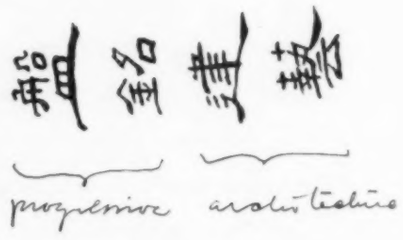
I should like to report on this experience as follows: the McCrarys are very swell people (Tex, it developed, graduated from Yale in architecture, during the depression, and then went into newspaper work); facing a microphone with no prepared script, for a truly "spontaneous" program, is a terrifying experience; in radio there is a large, unexplored, fertile field for the sowing of ideas about architecture, if one can judge from the interest, in this instance, of N.B.C., the program director, and the listeners who called me and the architects I mentioned, after the broadcast.

●

QUINCY JONES, OF LOS ANGELES, tells of being interviewed by a prospective client for an important job. The first question asked him was, "If *you* were going to select an architect, how would you go about it?"

●

WHILE WE WERE TALKING WITH MR. PEI ABOUT HIS DESIGN FOR A MUSEUM which appears in this issue, someone asked him how PROGRESSIVE ARCHITECTURE would be translated into Chinese. He laughed off the question, and we'd forgotten it until we received a letter from him the other day enclosing the following translation, "chosen after much discussion with Chinese friends."



Mr. Pei says, "The word *progressive* is especially difficult to translate. Its accepted Chinese equivalent is awkward sounding when used with the word *architecture*. The enclosed . . . is quoted from our ancient writings. Although it is not the most obvious translation, it is in our opinion the most appropriate."

●

PROGRESSIVE ARCHITECTURE is a mouthful in English, too. For that reason we've accepted the abbreviation that most of our friends had already been using and, as you may have noticed on our new cover and redesigned department headings, we're unbending enough to use the initials **P/A**.

Using the device which Gene Hawley designed for us also makes it possible to call attention to recurring **P/A** items which we have found, by surveys, to be the most popular and the most often referred to—featured design presentations, Critiques, office practice articles and data, Selected Details, etc. This is solely for your convenience. The Selected Detail format has been revised, at the suggestion of many of you, for maximum convenience in reference. The double heading on the long side of the page (type of building and part of building) will make it possible to build up a file of such Details which can be cross-referenced as you wish.

●

MOST OF THIS YEAR'S CHANGES IN P/A—no change in basic policy, but rather in emphasis and layout, addition of some new features (such as the office practice pages in this issue), and other things that you will notice as the year goes on—result in part from several surveys that we had made recently. I was much interested in the fact that two surveys—one asking a number of representative readers what they *wanted* in the magazine, and one factual survey of what had been *read* in a given issue—disagreed in a number of respects. In other words, architects quite often read items they say they're not interested in, and ignore things they have especially asked for.

All of which goes to prove, I suppose, that surveys can indicate almost anything, and must be interpreted very carefully. One of the best researchists in the magazine field says that a survey can't be substituted for a policy, a conclusion with which I agree heartily. All of the surveys in the world run by various people to determine consumer "preferences" in house design can't produce good residential architecture. One designer of a large housing project tells us of a questionnaire submitted to prospective tenants asking them in detail what they wanted. The replies indicated, of course, that they wanted everything. A second questionnaire which simply asked basic questions about living habits produced a great deal of very valuable design information. By and large, people ask for things they are familiar with; they can't very well ask for improvements that they haven't seen or heard of.

I'll end this rambling discourse by coming back to the point that we will continue to use surveys, conversations, letters, our own knowledge, and, frankly, our own opinions to try to produce the most useful magazine we can, documenting progress in architecture for a professional audience.

Thomas H. Creighton